PPIC Working Paper

TRANSPORTATION AFFORDABILITY FOR LOW-INCOME POPULATIONS

A Review of the Research Literature, Ongoing Research Projects, and San Francisco Bay Area Transportation Assistance Programs

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Preface

This working paper is designed as a reference document for transportation planners and researchers interested in transportation affordability and related issues for low-income people. The first chapter reviews the research literature on transportation and low-income populations. Chapter Two describes ongoing research projects that will add to our understanding of transportation affordability issues. Chapter Three provides information on several transportation assistance programs for low-income people in the San Francisco Bay Area. The topics covered are outlined in detail in the Table of Contents. The Table of Contents can be used as an index for identifying relevant sections of text based on the topic of interest.

This working paper is an initial step in the development of a research agenda on transportation affordability for low-income populations in the San Francisco Bay Area. Development of this research agenda is a collaborative effort of the Public Policy Institute of California and the Metropolitan Transportation Commission.

As a working paper this document represents work in progress that has not been formally reviewed or professionally edited. Any opinions expressed are those of the author and do not necessarily reflect the opinions of the Public Policy Institute of California (PPIC) or those of the Metropolitan Transportation Commission (MTC).

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1. Review of the Research Literature

Introduction

Transportation affordability has not been a catch term in the literature to date. However, there are numerous studies on transportation and low-income populations, and more recently, much literature assessing the transportation needs of welfare to work populations. With very few articles containing the words "affordability" in their titles, or even abstracts, this review focuses on those studies and analyses that address the key components contributing to transportation costs, which include: geographical concentrations of low-income populations and skill-appropriate jobs, travel time by modes most accessible to low-income populations, and the monetary costs involved in accessing the various modes chosen by, or relegated to, these groups.

This review begins with an overview of the literature that describes the travel patterns of low-income populations, as any future policy research attempting to understand affordability must understand how these populations currently travel. Although, these patterns may be as reflective of the unique needs of low-income groups as are they are of what is lacking in terms of transportation options in comparison to those available to higher income groups. Secondly, the review examines literature on the spatial mismatch hypothesis that posits: geographical separation between inner city poor minorities and suburban jobs reduces the employment prospects and earnings for these populations. This is related to transportation affordability in that evidence supporting the theory implies an inherent underlying un-affordability of transportation to jobs far from low-income neighborhoods. Next, research on the effects of land use patterns on travel time and transportation spending is summarized. Subsequently, the various transportation policy solutions that have been posed by researchers are synthesized, along with any relevant research on these options. Finally, studies on welfare-to-work programs and needs assessments are summarized, along with some information on funding available for programs helping low-income populations commute to work[1].

Travel Patterns of Low–Income Groups

The decentralization of jobs and concentration of poverty in inner cities has radically changed commuting patterns. Between 1970 and 1990, the number of non-poor workers commuting from city residences to jobs within the same city declined dramatically (O'Regan and Quigly, 1998), while cross-commuting between suburbs and reverse commuting have increase 28 percent among all workers (O'Reagan and Quigly, 1998). By 1990, three times as many work commutes were suburb-to-suburb as suburb-to-central city, with the working poor commuting slightly more often to the suburbs from

[1] This review does not incorporate internal studies conducted by transit authorities of implementation issues related to fare subsidization for low-income riders. Following the suggestion of the MTC Welfare to Work Working Group, Evelyn Baker at MTC is conducting a literature search for such studies.

the city than the non-poor worker (O'Reagan and Quigly, 1998). Commute patterns among low-income populations vary substantially from the overall population.

Commute Distances

Low-income households take 20 percent fewer trips and travel 40 percent fewer miles than non-poor households (Loveless, 1999). They also commute shorter distances on average than non-poor households (Loveless, 1999; Ong and Blumenberg, 1999). Approximately 60 percent of trips taken by low-income households are 3 miles or less, compared to 50 percent for other households (Murakami and Young, 1997). Some researchers assert that these differences are a reflection of the reduced mobility of low-income populations (Murakami and Young, 1997, Loveless, 1999), while others cite restrictions on time due to household responsibilities and a greater number of job openings within the inner-city compared to the suburbs as an explanation.

Modal Choices

Poor tend to travel as passengers more often than as drivers in private vehicles (O'Regan and Quigley, 2000). Although vehicle ownership rates are lower among low-income households these households tend to make most of their trips in private vehicles, usually owned by a friend or a relative. Public transit usage is higher among the working poor than the non-poor, although its usage has declined substantially among both groups between 1970 and 1990 (O'Regan and Quigley, 1998). In 1990, the share of work trips taken by whites was 4 percent among non-poor and 5 percent among working poor. In the same year, non-poor black workers took 12 percent of trips by public transit, while poor black workers took 16 percent of their trips by this mode.

Commute Time

While the poor have slightly shorter commute *distances,* they still spend significantly more time commuting than their non-poor counterparts. (Garnett,2001[2]; Shen, 2000,. Long work commutes are prevalent among those receiving public assistance, particularly for those commuting to non-central workplaces (Shen, 2000; O'Regan and Quigley, 2001). This is due, in part, to slower travel speeds on public transit. Transit commute times range from 63 to 94 percent longer than driving alone (Taylor and Ong, 1995), and the 1995 Nationwide Personal Transportation Survey documented that public transit commutes take on average twice as long as those using private transportation (Hu and Young, 1999).

Reverse Commuting and Off-Peak Work Hours

Larger percentages of poor than non-poor are reverse commuters, both by auto and public transit (O'Regan and Quigley, 2000). Moreover, those on public assistance are more likely to work off hours and part time. However, public transit hours and routes frequently do not match the needs of low-income workers whose commuting times and patterns often do not coincide peak hour service and scheduling and routing (Loveless,

[2] Referencing Taylor and Ong (1995)

1999). Low skill workers are more likely to work during off peak hours than the population as a whole (Blumenberg et al.,1998b; Garnett, 2001; Loveless, 1999). Because high quality, full-time and well paying jobs are hard to find, the poor are often forced to take on multiple part time jobs, which often complicates commuting needs and increases the likelihood of working off-peak hours. In fact, occupations with non-traditional hours are projected to account for almost 30 percent of all new job growth (Garnett, 2001*)*. Consequently, work commutes can involve extended wait times between transfers due to diminished public transit service during off-peak times (Garnett, 2001).

Auto Access and Ownership Rates

Low-income individuals are more likely to have access to a vehicle, in their household, than to own one (O'Regan and Quigly, 2000). Approximately 26% percent of low-income households and 36% of poor single-parent families did not have access to a car in (Murakami and Young, 1997).[3] These cars tend to be very old with the average age of these cars being 10 years (Murakami and Young, 1997). Among welfare recipients, auto ownership rates are substantially lower with estimates ranging from 18 to 27 percent of households (Ong and Blumenberg, 1999). Until recently it has been difficult for welfare recipients to own cars because of strict asset limits that would disqualify them from aid if they owned one. With the passage of the 1996 PWORA states are free to eliminate or revise these asset limits for qualification to receive benefits, however California's vehicle asset limit remains at $4,650.

A study by Gardenhire (2001) examined differences in relative influences of determinants of automobile ownership rates between poor and non-poor households. Income has been identified in past literature as the predominant determinant of auto ownership but few have examined how the influences of this factor and others differ for low-income households. Previous research by Gardenhire (1998) found that after "controlling for the influence of income, residential location, and access to transit, households headed by African Americans, Hispanics, females, single adults, and young people were substantially less likely to be without automobile than households not in those categories." The study identified tradeoffs made by poor and non-poor households in their automobile decision purchases, through a set of ordered probit models that used number of automobiles owned by the household as the dependent variable and predicted the likelihood of owning 0, 1, 2, or 3+ vehicles as a function of various socio-economic variables for poor and non-poor households using the 1995 National Personal Transportation Survey (NPTS)[4]. The results indicated that poor and non-poor households

[3] Study used data from the 1995 National Personal Transportation Survey, which includes 42,633 households. Authors of this study note that because data is based upon a telephone survey it is likely to under-represent low-income households who are less likely to have continuous phone service. Also, because the sample of single parent households is small, figures for this group are less accurate than for others.

[4] Separate models were estimated along 4 sets of binary market segments (gender of household, number of adults, race and employment status). Equality of parameter estimates was tested between segments through an iterative process until the best fitting model was determined.

have different automobile ownership choice behavior. While non-poor households have higher auto ownership rates, poor households "convert additional income into autos at twice the rate of non-poor households." Poor households are more sensitive to residential density and auto ownership is not *more* affected by transit availability in poor households than non-poor.

Women and Travel

Low-income populations are disproportionately comprised of women (Richardson, 2000).[5] A study of travel behavior in the San Francisco Bay Area found that women tend to make child chauffeuring and household serving trips than men and conduct 75 percent more grocery shopping trips than men (Mach and Taylor, 1998). This same study revealed that women's journey to work travel time is longer for women but that this difference varies widely by ethnicity (Mauch and Taylor, 1998). In 1990, women's commute distances were 77 percent that of men's at an average of 8.1 miles (US Department of Transportation, 1994, pp. 3-14). This has been explained by a variety of factors ranging from reasons such as women earn less than men on average and therefore are not compensated for their commutes at the same rate to women still primarily responsible for household duties increasing their time constraints (Ong and Blumenberg, 1998).

Research by Doyle and Taylor (2000), which used cross tabulations and multi-variate analyses to examine travel behavior by gender and ethnicity found large differences in non-work travel between gender across all ethnic groups. Women continue to shoulder much more of the household responsibility than men, resulting in their increased likelihood to chain trips together, with this difference being greatest among whites who have higher incomes than among people of color. However, they also found that race/ethnicity are more important determinants than gender on mode choice and commuting behavior. Some of the main findings regarding travel patterns of women include:

All trips:

- Women make more daily trips than men,
- Women on average have slightly lower auto access rates,
- Women are more likely to carpool and take transit than men,
- Lower-income women, especially mothers, are highly likely to seek access to automobiles whether it be as a passenger, part of a carpool or as a driver,
- Nevertheless, those who are transit dependent[6], take a majority of trips by transit.
- Blacks, Latinos and Asian women ride transit more than men within each of these ethnic groups.
- Men have more access to autos within each race/ethnicity group *except* for black urban women compared to black urban men.

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[5] Trends noted refer to women as a group regardless of income unless otherwise stated.
[6] Transit dependents are those who do not own vehicles.

Commute trips:

- Women are more likely than men to commute to work by carpool or bus.
- Women of color, particularly those living in the center city, have substantially longer commute times than all other groups (including men across all ethnicity groups and white women),.
- Single mothers (and married fathers) have the longest commute times[7].

Welfare Populations

Commute trips for a large majority of welfare recipients who are typically single mothers is governed by multi-purpose child serving trip chains which include trips to day care, schools, and grocery stores on the way to and from work (Ong and Blumeberg, 1998; Doyle and Taylor, 2000), and women with children age 5 and under are the most likely to trip chain (Loveless, 1999). These trip chaining needs complicate public transit usage and increases commute times (Garnett, 2001). Consequently, women with children are more auto-dependent because of their need to trip chain. In a 1983 survey of solo drivers, the number one reason cited for driving by women was the need to be able to respond to a childcare emergency quickly. They also may work closer to home because of their household responsibilities (Garnett, 2001)[8]. Walking is a predominant mode of transportation to work for employed welfare mothers without access to a car, with almost a third using this mode (O'Regan and Quigley, 2001).

Racial and Ethnic Groups

Doyle and Taylor (2000) found that walking comprises a large share of trips among persons of color and is more important for those who rely predominately on public transit than those who own automobiles. Vehicle access is lowest among blacks, followed by Asians, and Latinos. All three groups have significantly lower vehicle access rates than whites, mirroring differences in income. The number of person trips varies more by ethnicity than by gender and is highest among whites.

Transportation Costs

Transportation expenditures vary across families depending on several factors such as commuting distances, car ownership, local gas and insurance rates, and the degree of public transit usage and local transit fares.

According to data from the Bureau of Labor Statistics, Consumer Expenditure Survey, American households receiving public assistance devote approximately 15.3 percent of their expenditures on transportation (Passero, 1996). Those who are working spend significantly more on transportation than those who are not, with 19.3 percent being spent in households with one or more working members compared to 9.5 percent in those where no one works.[9] In working households, 9 percent of expenditures go toward

[7] Single mothers have the longest commute times because of both trip chaining and a higher use of public transit.
[8] Referencing McKnight (1994) *Transportation with Women in Mind.*
[9] Data is from CPS first quarter of 1992 through last quarter of 1994.

vehicle purchases and finance charges, while in non-working households only 3 percent are devoted to these expenses. Single parent households spend significantly less than dual parent households, at 10 percent and 19 percent respectively.

The California Budget Project (2001) published a report on the costs of raising a family in California. They estimate these costs for several family types. Based on the average commute distance to work plus some errands, the estimated costs for transportation assumes that adults in including single parents, two-parent families with one worker, and single adults drive 795 miles per month at a cost of $274 per month. In families with two parent workers, they assume two vehicles per household and an additional 637 miles and $220 per month in expenditures. They do not estimate regional variations in costs due to a lack of data. Because a majority of workers commute to work by car they do not estimate transit costs, however list the monthly costs of a bus pass for several counties.

The Wider Opportunities for Women has published county level costs of living estimates throughout California (Pearce, 1996). For the S.F. Bay Area they assume that transit is the main form of transportation citing an extensive transportation system in the Bay Area. The cost of transportation, in this budget estimate is, therefore, simply the cost of a bus pass, or two, in the case of two parent families. They don't seem to include the costs of BART fares however.

Work by Edin and Lein (1997) that documented how single mothers on welfare make ends meet in the cities of Charleston, Chicago and San Antonio, revealed that monthly transportation expenditures for wage reliant mothers were $129 but expenditures by welfare reliant mothers were only $62.

Land Use and Transportation Affordability

Over the last 30 years, entry level jobs and high income populations have migrated to the suburbs, while higher skilled, specialized jobs and the poor have remained primarily in the central cities, creating a geographical mismatch between low-income residences and job locations (Shen, 2001; Hughes, 1991; Holtzer, 1991).[10] This has been propagated in part by an industrial transformation from a manufacturing to a services based economy (Freeman and Holtzer,1986). The manufacturing industry has been traditionally concentrated in the central city while the services industries are dispersed through metropolitan areas (Freeman and Holtzer, 1986, Loveless, 1999). Moreover, central city employment has become increasingly information intensive, creating not only a spatial mismatch, but a skills mismatch within urban areas (Shen, 2001).[11] This increase in concentrated poverty has been most prevalent among older metropolitan areas (Hughes, 1991). Although low-income minority households have followed the trend of movement into the suburbs this movement has not kept pace with that of jobs (Quigley and O'Regan, 2000).

[10] Referencing Kasarda (1995)
[11] Ibid.

A recent study by Stoll, Holzer and Ihlanfeldt (1998) found that the locations of jobs and people across sub-metropolitan areas is also very uneven. Within metropolitan areas, black and Latino residents tend to be concentrated in central city areas where the prevalence of jobs is low, while whites predominately live in the suburbs where job availability is high. On average, "white suburban areas contain 69.4 percent of the lowest-skilled jobs but only 40.6 percent of the least-educated people, while the black central city holds 10.2 percent of these jobs relative to 15.6 percent of such people" (p.20).

Spatial Mismatch Hypothesis

Kain (1967) argued that the residential segregation of poor minorities within central cities in conjunction with increasing decentralization of employment decreased employment opportunities for minorities. As employers have continued to move to the suburbs, poor and minorities have not been able to move out at the same rate due to housing discrimination and high housing price differentials between ghettos and other central city areas as well as the suburbs (Kain, 1992). According to this theory, because transportation costs, in terms of both time and money, constrain the distances poor workers are able to commute and search for work, their employment opportunities are limited by this spatial mismatch. While white and black workers usually demand compensation for their long commutes through better housing amenities or higher wages, blacks have not been able to obtain compensation to same extent as whites (Kain, 1992).

The spatial mismatch theory has been an intensely debated topic since Kain's first paper. Kain (1992) reviewed three decades of research findings by scholars whose work both support and reject the hypothesis.[12] According to Kain's review of studies, several researchers have found varying degrees of evidence supporting the hypothesis, with some models firmly confirming it while others have found no or weak evidence. For example, Leonard (1986) and Ellwood (1981, 1986) found that most unemployment is attributable to race rather than geographical patterns. Meyer and Gomez-Ibanez (1981) found that racial discrimination and lack of skills or education were much stronger causes of unemployment.

Some studies rejecting the hypothesis were criticized in Kain's review for using segregation rather than job accessibility measures in their specification of spatial mismatch or for wrongly assuming that that blacks living in *segregated conditions* in the suburbs should have higher earnings than those in central cities under the hypothesis. According to Kain, researchers such as Ihlanfeldt and Sjoquist who have used "stratified individual level samples of black and white youths, sophisticated econometric methods, and better spatial mismatch measures" (p. 399), have provided the most convincing evidence in support of the hypothesis. Stoll, Holzer and Ihlanfeldt, (1998) found that nearly half of all low-skill jobs are inaccessible by public transit.

[12] He discusses work by Ihlanfeldt, Sjoquist, Zax and Quigly who found evidence supporting mismatch hypothesis and Jencks, Mayer, Leonard and Ellwood who reject the hypothesis.

Ihlanfeldt and Sjoquist (1998) reviewed the literature published since Kain's review and found that these later studies used more suitable data and superior methodologies and therefore "provided the most reliable evidence to date on the spatial mismatch hypothesis" (p. 849). Other reviews of empirical studies on spatial mismatch hypothesis include Holzer (1991) and Jencks and Mayer (1990). O'Regan and Quigley (2000) point out that the causal link between higher unemployment rates and spatial mismatch between low-income minorities and jobs is endogenous yet has been confirmed by studies examining labor by at-home youth (whose residents are chosen by their parents).

One such study conducted by Raphael (1998) of San Francisco Bay Area youth, age 16 to 19, found strong evidence supporting the spatial mismatch hypothesis based an employment based measure of intra-metropolitan job accessibility. Using variation in net employment growth he estimated pooled employment regressions and found that differential job accessibility explains between 30 to 50 percent of the neighborhood employment rate differential between black and white male youth living in the Bay Area. Separate regressions were also performed by race, showing that approximately 20 percent of the differences in employment are attributable to differences in access.

Spatial Mismatch and Commute Times

Many scholars have examined commuting times and distances of low-income and minority populations in an effort to further explore the spatial mismatch hypothesis or to examine how geographic dispersion of jobs impacts the commuting behavior of low-income populations. In a 1986 research piece exploring the spatial mismatch hypothesis in Chicago, Ellwood (1986) found that low skill jobs had been leaving the city of Chicago faster than low-skilled workers, that young and low-skilled blacks in Chicago spent far more time getting to work on average than comparable whites, and that most workers worked far from their neighborhoods. However, the study found only small effects of job accessibility on labor market outcomes within the Chicago area.

In two studies (Gordon et al, 1989; Ong and Taylor, 1993) examining commuting times and distances, researchers rejected the spatial mismatch hypothesis on grounds that commuting times were either no different or where converging to that of the non-poor. These scholars argue that under the spatial mismatch hypothesis, minority or low-income workers would have to travel longer distances to reach jobs. Gordon, Kumar and Richardson (1989), examined automobile commute distances by income groups, industry groups, gender and family status and metropolitan size class and place of residence (central city vs. suburb), using the Nationwide Personal Transportation Studies of 1977 to 1983-84, and found that neither low-income workers nor minorities had longer work commutes, concluding that low-income and minority groups are not more likely to work closer to home due to segregation. One possible weakness of this study is that it only examines commuting by auto, seeming to neglect the possibility that lack of automobiles is what constrains this population's job access.

Ong and Taylor (1995) came to similar conclusions in their examination of commuting trends of minorities and whites within metropolitan areas. Using data from the American Housing Survey, they found that, overall, the commute patterns of white and minority

workers have been converging over time. Black and Hispanic workers living in minority areas had both shorter commute times than other workers and distances that increased more slowly compared to workers in other areas between 1977-78 and 1985. Longitudinal analysis demonstrated that commute times of minorities, who remained over time in minority neighborhoods, decreased. Where commute times were longer for minorities it was attributable to slower travel speeds rather than longer distances. African Americans were slowed by their high reliance on public transit. They were three times as likely, compared to whites, to commute by public transit, with commute times averaging 75 percent longer than driving alone. In minority areas, the average commute distances were shorter for blacks and Hispanics compared to workers in other areas. They conclude that lack of access to an automobile, not a spatial mismatch, impedes job accessibility for low-income minorities. It seems that a weakness of both of these studies is that the researchers do not consider the idea that shorter commutes may imply decreased ability to commute due to constraints on both time and money, and that these constraints may therefore limit the range of job opportunities for the poor.

In his exploration of commuting times of minorities in large central cities, Kasarda (1995) found, using 1990 Public Use Microdata Sample (PUMS) data, longer commute times for blacks versus whites in 19 or 20 cities[13]. Doyle and Taylor (2000) found that commute time is positively associated with transit use, being black, being female, the exclusion of non-work related trip chaining during the commute.[14] These findings are supported in work by O'Regan and Quigley (1997), who showed that low-income black workers spend significantly more time commuting, particularly those in the largest metropolitan areas.[15] Finally, Khattak, Amerlynck and Quercia (2000), in their examination of commuting patterns of low-income urban residents using the 1995 NPTS, found that urban residents commute longer and farther than residents of low-income urban neighborhoods. The average commute differences for the lowest income neighborhoods were only 6 minutes and 2 miles between lowest income neighborhoods in urban versus suburban locations. The authors conclude that while these average differences do not impose great burdens, regional variations may result in larger differences and burdens in some locations. They suggest future research to explore this variation. They also explain that the value of time used in their model does not include all the costs involved in the decision to work such as child care and the monetary costs of transportation and suggest that these costs should be incorporated in future studies if possible.

Shen (2000) studied the twenty largest metropolitan areas in an effort to understand commuting patterns among neighborhoods among different socio-economic groups. He employed mapping and spatial query techniques with journey to work and socioeconomic data, accessibility measures within the urban spatial structure, and regression analysis of variations in commute time. The analysis revealed that 1) average commuting times tend

[13] Citation as referenced by Shen, 2000.
[14] Their study uses a multi-variate analysis of commute time (and using gender, ethnicity, presence of children, presence of other adults, location in suburbs or urban centers, travel mode, household income, education, and age as control variables).
[15] Citation as referenced by Shen (2000).

to be longer for residents living in low-income minority neighborhoods than for other areas of the central city, 2) urban spatial structure, determined jointly by transportation provisions and land use configurations, is a significant explanatory variable of commute times, and 3) other factors such as income, education and race affect commuting times.

In Los Angeles County, Ong and Blumberg (1999) found that in the largely poor and minority area of South Central Los Angeles, houses seven percent of the county's population but offers only three percent of its jobs, most of which are very low paying. They found that welfare recipients who live in job rich areas have slightly smaller commute distances compared to those who live in job poor ones. In job rich areas, the median commute distance of recipients is 6.6 miles, 1.1 miles shorter than in job poor areas.

Shen (2001) introduces a new perspective, arguing that studies have errantly focused solely on the location of *job growth* and have neglected to identify the location of *job openings* relative to the location of low-income residents and unemployed welfare recipients. In a spatial analysis of job openings and poor residences in the Boston metropolitan area, he found that while the majority of new jobs are created in the suburbs, the greatest source of job openings are from turnover from existing jobs. Given that labor is highly mobile throughout the U.S., job turnover is likely to be the primary source of job openings in most metropolitan areas. While these openings for lower skilled employment are still found primarily in the central city, he accedes that there is still a larger number of unemployed residents than skill appropriate openings within the inner city, making transportation and housing mobility for poor still an important policy issue. In his conclusion he agrees with Taylor and Ong (1995), that most of the gap in employment accessibility is due to lack of access to autos by poor.

Land Use Patterns and Transportation Impacts

Whether or not spatial mismatch causes unemployment or decreased earnings for poor or minorities, growing distances and complex dispersal patterns of job centers impose increased transportation costs on these families' already severely constrained budgets. Several scholars have noted that land use patterns, such as jobs/housing balances Cervero, (1989) and physical planning, such as increased density, (Newman and Kenworthy, 1989) have a fundamental impact on travel patterns. While only one study attempts to estimate the costs of these travel patterns directly (STPP, 2002), the impact of spatial separation on travel needs and patterns is also explored in several studies.

A study examining the transportation factors adversely affecting low–wage labor in Baltimore, Maryland found that transit times and costs in the city of Baltimore were a significant impediment for low-wage workers in commuting to work because of the decentralization of jobs within the metropolitan area (Farkas, 1990). They conducted a survey of unemployed low-wage city residents in which more than a quarter of the respondents stated that they would be unwilling to commute to suburban employment centers because of the costs and time involved.

A recent study by the Surface Transportation Policy Project (STPP) (2002) explored the degree to which transportation costs are associated with suburban "sprawl." In their analysis of 28 metropolitan areas, they found that transportation costs are driven up by sprawling development patterns. Using data from the Consumer Expenditure Survey and the U.S. Bureau of Labor Statistics, they employ a bivariate regression model to estimate the amount of variation in transportation expenditures accounted for by variation in a composite measure of sprawl. According to the study, personal transportation costs were significantly higher in areas with higher levels of sprawl and with a highway oriented transportation strategy. Costs were found to be higher by thousands of dollars each year compared to less sprawling areas. Costs as a percentage of households in the top ten most sprawling metropolitan areas range from 17.8 percent to 22.1 percent, while in the lowest ten they ranged from 14.4 to 16.8 percent. Furthermore, "transportation expenditures in the three most expensive areas were almost one-third greater than in the three least expensive areas" (Chapter 2, 4th pp, STPP, 2002).

They attribute the increase in costs to both the increases in distances between average trip origins and destinations and the reduction of transportation choices available in most sprawling areas. Specifically, they argue that sprawling land use makes driving, the most expensive form of transportation, increasingly, the only viable form of transportation. These increased costs associated with increased automobile dependence impose significant burdens upon the budgets of low-income families. Their method seems to fall short, however, in that they do not control for other factors in their regression analysis that could be *both* correlated with the share of household transportation expenditures and urban sprawl, such as household size and composition, possibly introducing omitted variables bias. However, in a previous section of their paper, they do present compelling maps that show variations in automobile costs for a given average family size and income across various metropolitan areas, depicting large increases in automobile costs with increasing distances from the urban center, holding household size and income constant. Ong and Blumberg (1999) observe that regardless of the degree of job accessibility within a particular neighborhood, many welfare recipients (and low-income populations) will need to travel outside of their neighborhood for work. Another study by Blumenberg and Ong (1997) examined how commute distances affect employment opportunities for low-wage workers and whether these workers can afford to work far from home given commute distances from their homes. Welfare recipients who work far from home tend to earn less than those who work close to home. This differs from the conventional findings that high wage workers are more likely to commute long distances than low-wage workers since they are compensated for their commute time and costs by higher salaries and have increased access to automobiles. They found that longer commute distances result in lower wages and that the out of pocket and time costs of these longer commutes result in "higher turn over rates and lower net earnings" and may discourage employment. Similarly, Holtzer (1994) found that job decentralization in conjunction with the increased likelihood of inner-city residents commuting by slower, non-automobile modes, caused the time costs to exceed the additional value gained from the expansion of either their search area or commute length[16].

[16] Citation as referenced by Doyle and Taylor (2000).

Chapple (2001) found that women on welfare seek to minimize commutes and rely disproportionately on social contacts to find jobs.[17] Poor women with children are even more likely than those without children to rely on contacts for work because they prefer to work close to home and jobs found through social contacts tend to have significantly shorter travel time for women with children. However, since jobs further from home may be more likely to have career ladders, welfare-to-work policy should nevertheless concentrate more on providing transportation assistance. If women could access training needed for higher paying jobs commuting longer distances may pay off.

Martin (2001) uses an urban equilibrium model of spatial mismatch to examine the impact of providing of commuting subsidies to mobility restricted, low-income, central city, households on their welfare. Welfare was measured by household consumption levels. The impact of commuting subsidies was determined by first comparing the consumption levels of low-income mismatched households that are subsidized to those that are not to estimate the welfare gains from the subsidies. Then, the subsidized low-income households' consumption levels were compared to those of low-income households who are not mismatched to understand the degree to which subsidies offset welfare losses posed by spatial mismatch. The model was applied using 1990 Census data for the following metropolitan statistical areas (MSA): the Atlanta MSA, the Boston-Lawrence Salem, MA-NH CMSA,[18] the Chicago-Gary-Lake County, IL-IN-WI CMSA, and the Seattle Tacoma, WA CMSA. The results indicate that commuting subsidies for outward commuting raise the welfare of low-income households but only in small proportion to the total welfare loss associated with spatial mismatch.

Policy Options

There are three main strategies for addressing spatial mismatch problem identified widely in the literature (Wachs, 1997; Hughes, 1991): 1) create more affordable housing options in suburbs, 2) bring jobs to poor communities, and 3) invest in transportation to suburbs for poor.

Housing Mobility

Efforts have been made to increase low-income resident's housing mobility through the use of housing vouchers and additions to the affordable housing stock. However, very little new affordable housing has been built in the suburbs, suburban rents are unaffordable, and the demand for vouchers far exceeds the supply (Loveless, 1999). Moreover, even if an adequate degree of housing mobility were to be achieved it would not eliminate the need for better transportation (Ong and Blumenberg, 1999). Farkas (1990) cites increasing the amount of low-income housing in the suburbs as the most important policy measure to decrease time and monetary costs of transportation for commuters.

[17] Uses a binomial logit model and found this variable is highly significant.
[18] Consolidated Metropolitan Area (CMSA)

Shen (2001) questions the wisdom of promoting residential dispersion for very low-income families because the low-density suburban environments would make transportation to work and non-work locations very difficult without a car. He adds that since most job openings are in the central city where transit services are more extensive, policies that aim to move poor to suburb may not be effective in removing spatial barriers to work (Shen, 2001). This view however neglects the fact that a large number of low-income households do own cars. He concedes that there are other benefits aside from access to suburban jobs for low-income households who are able to move to the suburbs such as access to better schools, and other higher quality public facilities (Shen, 2001).

Local Economic Development

Many scholars consider the use of financial incentives, regulatory relief and social services programs to attract jobs to the central city an optimal solution. However, many (Hughes, 1991; Wachs, 1997; Loveless, 1999) argue that the prevailing trend of employers to move to the suburb and the lack of funds to increase development within existing redevelopment and enterprise zones limits the feasibility of this option as a large scale solution. Hughes (1991) argues that the economic reasons that businesses have moved to suburbs would be too expensive to reverse. He proposes that transportation and communication devices, which have been the forces behind decentralization, could be harnessed to connect inner city residents to suburban jobs.

Because, due to a lack of funding and political will, policies to address the housing mobility and local economic development are not likely to happen on a large scale, many are looking to transportation to link low-income populations to job opportunities (Wachs, 1997). Moreover, since the land use patterns that have evolved and contributed to the increased complexity and distances of work commutes are not likely to be reversed, it is important to improve transportation mobility of poor (Blumenberg and Ong, 1997; Ong and Blumenberg, 1998.). Finally, many scholars contend that given time limits for welfare eligibility under welfare reform, TANF recipients cannot wait for economic redevelopment strategies to bring jobs to low-income neighborhoods nor for affordable housing to made more widely available in the job rich suburbs (Wachs, 1997; Loveless, 1999).

Transportation Strategies

While many researchers agree that transportation policy should focus more on the needs of low-income populations, their views regarding the types of transportation services that should be improved or provided differ. The transportation policy options often discussed in the literature include: subsidizing automobile ownership, improving public transit service and hours, providing more public transit fare subsidies, revamping inequitable transit spending policies, enlisting private companies to aid in reverse commute programs, and legalizing private, demand-responsive, flexible route transportation. Some strategies, such as transit fare subsidies, reduce the monetary costs of transportation, while others, such as improving transit speed through increased services, and providing autos to poor, decrease time costs. Still others, such as flexible routing, demand

responsive systems, and subsidizing the operating costs of vehicles have the potential to do both.

Autos for the Poor

O'Regan and Quigley (2001), Taylor and Ong (1995), Wachs, (1997), Gardenhire (1997), and Hughes (1991) argue that spatial mismatch between areas of low-skilled job growth and low income populations, and the unique challenges they face -such as the need to trip chain, respond to their children's emergencies, and to commute during off-peak hours and in reverse commute patterns- call for the provision the private autos to this population as part of the solution. Given the suburbanization of both population and jobs, transit is considered by some as an obsolete mode in many metropolitan areas and its emphasis inappropriate (Waller and Hughes, 1999). As discussed previously, Taylor and Ong (1995) argue that over-reliance on public transit with slower travel speeds and lack of access to a car rather than geographical differences between entry-level jobs and low-income residents are the causes of unemployment. These scholars contend that increasing automobile ownership is key to for low-income populations to achieve the level of mobility needed to increase work, family, educational and social opportunities to the same level as the non-poor in the long term (Gardenhire, 1997; Wachs, 1997; Waller and Hughes, 1999; Taylor and Ong, 1995; Ong and Blumenberg, 1999).

Studies by Ong (1996, 2002) found that car ownership facilitates employment. Their 1996 study using survey data of approximately 1000 female heads of household receiving Aid to Families with Dependent Children (AFDC), found that those owning an automobile had higher employment rates and total earnings. Because car ownership is an endogenous variable with respect to employment (i.e. employment may cause one to own a car) the authors used two instrumental variables (variables indirectly related to car ownership but not to employment), population density and insurance premiums to predict the likelihood of being employed. The study employed a two-stage logit model using survey data of TANF recipients in urbanized areas of Los Angeles County.[19] Predicted car ownership was estimated to increase the odds of being employed increased by 9 percentage points.

This study confirmed previous work by Raphael and Rice (2000) that used 1992 and 1993 Survey of Income and Program Participation data and gas taxes and insurance premiums as instrumental variables and found that automobile ownership has a significant effect on increasing the odds of employment.

Automobiles have often been an overlooked solution because of environmental concerns such as air pollution, farmland preservation and traffic congestion. However, many researchers argue that the poor should not be impeded from reaching economic sufficiency nor bear the brunt of long commutes on public transit for the sake of environmental concerns, especially while many upper income households now own 3 or more vehicles per household (Waller and Hughes, 1999; Wachs, 1997). Moreover, these negative externalities associated with auto travel should be addressed in broader policies

[19] Sample was restricted to families headed by a single female between the ages of 18 and 45 who was required to fulfill the work or job search requirements under TANF.

that target drivers as a whole and not just poor, such as congestion pricing (Waller and Hughes, 1999) and vehicle emission feebate schemes.

Several states have recently removed or lowered auto asset limit eligibility requirements for receipt of TANF (43 have raised and 24 have eliminated based on survey by Waller and Hughes, 1999). In addition, many social services agencies and non-profits have begun coordinating vehicle donation programs for welfare recipients and low-income groups (Reichert, 1998). A report by the National Economic Development and Law Center (NEDLC) provides detailed case studies of seven car donation programs across the country NEDLC, 2001). The car donation programs they studied provided TANF clients with cars with retail values ranging from $2,000 to $5,000. Clients paid between $0 and $5,000 for the cars. Securing auto insurance for clients was often a significant challenge. In their report they identified best practices and made several policy recommendations. Some of the policy recommendations include:

- Increase TANF funding for car ownership programs
- Allow the use of TANF support services funds to aid car purchases.
- Increase auto asset limits
- Develop systems for federal, state and local governments and private businesses to donate surplus fleet vehicles
- Allow the use of Individual Development Accounts (IDA) for car purchases, and
- Barring auto insurance companies from charging higher rates based on credit history and neighborhood.

Views Against Autos as a Solution

Opposition to automobiles as a transportation strategy solution for the poor are centered around three concerns: feasibility, environmental concerns, and long-term affordability.

While providing welfare recipients and the poor with autos is an effective mobility solution some argue that it may not be feasible to provide all who need one a car. There are 7.3 million welfare recipients nationwide (Garnett, 2001). Moreover, there are many working poor without cars, but auto programs currently only target the welfare population and not the working poor, raising equity concerns (Garnett, 2001).

Others cite environmental concerns about any polices that would increase auto ownership. Advocacy groups such as the Surface Transportation Policy Project, Citizens Action, and the Campaign for Reliable Transportation, argue that automobile dependence and a lack of viable public transit alternatives, perpetuated through inefficient and unjust land use and transportation funding practices, harms all levels of society due to the effects of congestion, air pollution, loss of open space, community and reduced mobility for disadvantaged groups. They contend that there are many sectors of society who cannot afford to or are physically unable to drive, such as the elderly, children and the extremely poor (Campaign for Reliable Transportation, 1995). Therefore, alternative modes to the automobile should be promoted and improved.

Owning and maintaining a car is a huge financial burden. According to the Campaign for Reliable Transportation (1995) the operating costs of automobiles has increased 300 percent in the last 20 years. Car insurance costs alone can sometimes reach more than $200 per month (Loveless, 1999) and yearly costs for gas maintenance, and insurance can total on average to $5,000 (Campaign for Reliable Transportation, 1995). Furthermore, the poor often own older vehicles that inevitably incur more frequent and major repairs than new ones (Murakami and Young, 1997; Loveless, 1999). Automobiles are in fact the most expensive transportation option with costs averaging $0.53 per mile,[20] and mechanical problems with cars can also result in job retention problems for the very low skilled worker (Loveless, 1999).

However, poor individuals must weigh the tradeoffs between the time costs involved with sole reliance on public transit, versus the monetary costs and uncertainties involved in owning an older and unreliable car. In her doctoral dissertation, Gardenhire (2000) conducted in depth ethnographic interviews with 74 residents living below the poverty line in Marin County, California.[21] She found that car owners frequently had difficulties managing the costs of their automobiles and often were forced to choose between auto expenses and other household expenses. However, those without autos in the study suffered greater hardships due to time costs and stress associated with using other forms of transportation in the suburban /rural county of Marin.

Given the mobility advantages they provide, many poor households consider owning a vehicle a necessity and are willing to bear the financial burden at the expense of other household needs (Loveless, 1999). Work by Gardenhire (2001), discussed above, finding that low-income households convert income into auto ownership at faster rates than other income groups, seems to support this idea.

However, Reichert (1998) argues that while owning a car may be key for some in obtaining employment, it will be impossible for others who have poor driving records, have revoked or suspended licenses, resulting high insurance costs or those who cannot afford maintenance, long distance commuting costs and parking fees.[22] Therefore, she concludes that States need to improve affordability and access of both cars and transit for low-income populations.

Forthcoming work by Cervero, Sandoval and Landis ties together many of the issues underlying the debate over the relative importance of various transportation options. For their study they use panel data[23] on welfare recipients in Alameda County, California to examine the relative importance of transportation variables in explaining variations in individual abilities to obtain employment. The probability of an individual getting a job as a function of car ownership, transit service quality, regional job accessibility by different modes, human capital, and a set of control variables was predicted using a

[20] Citing AAA, "Your Driving Costs," 1996.
[21] Author conducted 73 interviews with low-income heads of households. Half owned an auto and half did not. Most respondents were female heads of households with at least one child present.
[22] Also those who do not have legal status in California are unable to get a valid driver's license.
[23] Sample included 466 individuals representing less than one percent of all Alameda County AFDC cases.

multinomial logit model. The findings indicate that car ownership and education significantly increased the odds of a recipient leaving welfare for a job, however indicators of transit service quality did not. Concentrating housing near bus or rail routes appeared to be the most effective transit characteristic in stimulating employment. One possible concern with this study, however, is that the issue of endogeneity of auto ownership (i.e., employment may promote car ownership) is not accounted for in the statistical model. It is also unclear to what degree the small sample size may contribute to the lack of effect found for transportation services.

Improving Transit Affordability and Service

Shen (2001) argues that public transit should be improved for those who cannot afford autos or who are not fortunate enough to benefit from auto donation programs. Improving the speed of public transit during the hours and along the routes needed by low-income populations can reduce time costs. This is a difficult challenge, given that federal subsidies for transit operating costs have been severely curtailed in recent years, forcing many agencies to cutback or eliminate services (Loveless, 1999).

Farkas (1990) recommends efforts to make public transit a cost-effective commuting option comparable to that of commuting by car by increasing its travel speed. According to these authors, modes that have the capacity to approach the speed of the automobile include: commuter rail, light rail, bus ways and paratransit modes, such as carpools, vanpools, and jitneys. Since metropolitan areas continue to decentralize, fixed route services such as rail will be inadequate by themselves in many contexts. Therefore, he proposes flexible paratransit services to help commuters reach dispersed job locations. These modes are popular among low-income workers for their low-cost and faster speeds (see discussion of jitneys below).

In Alameda County, California, the Transportation Choices Forum, a non-profit organization working on land use and transportation issues, has conducted an analysis of transportation needs of low-income residents in the county. Their recommendations, which they estimated to cost $18.5 million per year, include:

- Improve local bus service in Alameda County,
- Initiate shuttle and van pools operating between low-income neighborhoods and job centers.
- Provide 24 hours bus service.
- Create a “Lifeline” Transit Discount Pass for low-income residents
- Offer child-care transportations services either through shuttles or by locating centers close to major transportation hubs.
- Promote employer sponsored transportation programs

During a 1998 conference on transportation to work for welfare populations, Professor Giuliano, UCLA, stressed, however, that public transit best serves specialized markets which include individuals who have access to vehicles, those who live in older cities with extensive rail services, and central city commuters (Blumenberg, 1998b).

Transit Fare Subsidies for the Poor

The decentralization of jobs as well as the trip chaining needs of single parents increases both time and monetary costs of travel, particularly for women who are dependent on public transit (Loveless, 1999). The monetary costs are especially high if they are unable to afford bus passes that allow unlimited monthly rides (Loveless, 1999). Donald Shoup, a professor of Urban Planning at University of California, Los Angeles, proposed during a 1998 conference on transportation to work for welfare recipients, the provision of free transit passes for welfare recipients as a cost effective way to provide increased transportation options to poor (Blumenberg, 1998b). In fact, many welfare-to-work programs partially or fully subsidize transit fares for recipients (Waller and Hughes, 1999). However, Waller and Hughes (1999) criticize that many transit subsidies for welfare to work populations are provided on a temporary basis with an arbitrary time limit that is unrelated to economic need, implying that these subsidies need to be extended and based on income rather than welfare status.

The feasibility of no fare and low fare transit policies was examined in a report by the Metropolitan Transportation Commission in 1973. The report discusses several potential benefits associated with such policies such as increased ridership, reduced costs for groups with special needs such as the poor, disabled and the elderly, reduced congestion, lower pollution rates and energy conservation and the more efficient use of existing public transit. The report cites high costs and uncertainties regarding the degree of increase in ridership generated by such policies as problems. They examine several cities where no or reduced fares had been in place and concluded that while revenues were lost there was a general increase in social benefit among cities who had implemented such policies. The study suggests the evaluation and consideration of a number of complements to a no fare or low fare policy such as restrictions and disincentives on auto use, gasoline rationing, among others. Because of the difficulty in estimating increased demand due to no and low fare policies, the authors also recommend a series of demonstration projects focused on special needs groups to evaluate the benefits of such programs.

A study by Charles River Associates (1982), evaluated alternative methods of reducing the impact of transit fare increases on low-income groups in Atlanta, Georgia. Five alternatives to a flat fare structure were considered: direct user subsidies, quality-based fares, reduced fares on designated routes, peak/off peak fare differentials and distance based fares. Each of these fare structures were evaluated based on five criteria related to the efficiency and equity of each subsidy type including: 1) target efficiency, 2) coverage, 3) administrative cost and efficiency, 4) total cost and 5) degree of relief. Direct users subsidies, which provide fare assistance directly to low-income riders, and were found to provided the highest level of relief to low-income riders because they enabled a more efficient targeting of this group of riders and provided a higher degree of coverage than the alternative options.

Brown, Hess and Shoup (2001) conducted a survey of unlimited-access transit pass programs at 35 universities across the nation. Passes are typically purchased for all

students at a reduced rate by the university and given to students for free or at a reduced rate. The passes allow students unlimited access to throughout the bus system. They surveyed university officials, finding that unlimited access to the bus system reduces parking demand, increases students' access to the campus, helps to recruit e and retain students, and reduces the cost of attending college. Interviews with transit agencies indicated that the programs increased ridership, filled empty seats, improved transit service and reduced the operating cost per rider. Ridership increased on average between 71 percent and 200 percent during the first year of the program. On average the cost to the universities for the program is $30.00 per student per year.

Garnett (2001), Waller and Hughes (1999) conclude that although transit fare subsidies lower the cost of travel, they do not address any of the systemic problems, such as lack of routes, trip chaining needs, off-peak commute hours, long distance commutes, or multiple transfers, nor sporadic and unreliable bus service and lack of service during off hours. At the same UCLA conference mentioned above, Professor Neimeir from UC Davis, echoed this concern when she described her experiences traveling with 10 to 12 randomly selected welfare recipients in Sacramento. She found that the typical commute of recipients using public transit, which often included trips to daycare each way and multiple bus transfers, to be extremely onerous, and time consuming, (Blumengberg, 1998b). Professor Wachs argued that both increased hours and lower fares are needed for welfare recipients and low-income populations within central cities, and that access to cars are needed for workers commuting to or within the suburbs or rural areas (Blumenburg, 1998b).

Reverse Commuting Service

Hughes (1991) advocates the restructuring of transportation systems to facilitate reverse commutes for poor, central-city residents. However, the cost of reverse commute routes, serving late night shifts and low-density suburban destinations can reach $10 per ride (Waller and Hughes, 1999). Suburban transit routes are often the most expensive to subsidize because riders take longer trips (Waller and Hughes, 1999). Therefore, increasing subsidies to suburb job access routes would require either additional funding or the shifting of funds from inner city routes. While providing additional public funding for additional service to suburb jobs would avoid cutting back on high ridership routes, it would be a very expensive proposition that would not acknowledge the responsibility of employers to pay their share of labor transportation costs and the added transportation costs of their suburban location decisions (Waller and Hughes, 1999, Loveless, 1999).

Businesses have been asked to contribute to costs of bringing employees to their workplace by partnering with transit agencies, providing customized services, and subsidizing employee transit passes, however the response has been disappointing particularly in light of substantial subsidies given by these same employers to car drivers through free parking (Loveless, 1999).

Transit Spending Inequities and Transportation Affordability

Transit riders are, on average, much poorer than the general population, yet federal and state subsidies disproportionately fund suburban and downtown commuter services that

serve higher income patrons in an effort to draw commuters out of their automobiles (Garrett and Taylor, 1999). According to the U.S. Department of Transportation (U.S. DOT), the median household income was below $20,000 for urban bus passengers, above $40,000 for commuter rail patrons and over $45,000 for drivers of private vehicles in 1995.

In 1981, the average per passenger operating subsidy for commuter rail was three times that for bus service in the United States, and since then, the disparity has only grown more severe. In Los Angeles, for example, a study found that inner city service received less than 22 cents per passenger in operating subsidy while express service received more than $1.18 per passenger (Loveless 1999[24]). Federal funds available under the Urbanized Area Formula program (Section 5307) offer only 50 percent in matching funds for operating costs but 80 percent of net project cost for new capital projects, encouraging local operators to cover more of operating costs through revenues (fare boxes). Moreover, of the share made available to urbanized areas over 200,000 in population, one third is apportioned in direct proportion to the amount of fixed rail service provided while the remaining two thirds is allocated to bus service. This despite the fact that bus service comprise about 95 percent of all transit (Garrett and Taylor, 1999). Further, systems that cover larger areas and run more cars receive higher shares of federal subsidies regardless of the actual passengers carried. Discretionary funding that favors capital-intensive projects and, state funds that are distributed based on county population instead of ridership, favor larger, less densely populated areas with low levels of transit riders. These funding policies combine to encourage the expansion of service areas over the increase in ridership among existing routes.

Federal tax dollars have traditionally favored the automobile, which is more expensive and is used more predominately by higher income groups, over transit (Loveless, 1999). However, with the passage of TEA 21, the bias towards autos has been reduced with one example being the allowance of employer tax deduction of up to $100 per month for transit or vanpool commuting subsidies (Loveless, 1999). However, for comparison, a parking subsidy for an employee to drive alone and park at a worksite still provides an employer with a $175 per month tax write-off (Loveless, 1999). These funding policies have combined to improved the range of transit commuting options for suburban residents at the expense of mobility for low-income, captive, riders in the inner cities and have important implications for transit affordability for working poor and welfare to work populations (Garrett and Taylor, 1999).

The poor are disproportionately dependent on public transit to get to work. Almost half (42 percent) of all trips are on public transit are work related. And, while central cities house only 20 percent of all workers, they contribute to 69 percent of all transit use (Garrett and Taylor, 1999). Most job opportunities are actually located within the central city (Shen, 2001). Therefore, "improving the quality of heavily patronized local transit service and reducing fares for short and off-peak trips would clearly do more to connect workers without cars to urban employment opportunities" (Garrett and Taylor, p. 10).[25]

[24] Citing Borgen, 1999, *A Tale of Two Cities.*
[25] Citing Wachs and Taylor (1998)

While some rail proponents argue that radial rail transit systems are necessary to help inner city poor to reach suburb jobs, others counter that long distance and reverse commutes comprise a minority of work trips for poor due to constraints on time (as discussed above), and that low-wages that do not compensate for these commutes (Garrett and Taylor, 1999). Moreover, fixed route systems are more effective at connecting dense suburban centers to dense urban cores than connecting inner city residents to dispersed suburban jobs (Garrett and Taylor, 1999).

Many inequities in transit fare pricing and funding make public transit more expensive for low-income riders (Garrett and Taylor, 1999). Fare structures often result in a cross-subsidization of wealthier riders by poor ones. Poor riders, who have fewer options, are less sensitive to price changes than are higher income commuters who have access to cars (Garrett and Taylor, 1999). As a result transit fares tend to be lower on commuter and suburban transit systems on a per mile basis than city bus systems in order to attract these higher income, discretionary patrons (Garrett and Taylor, 1999). Ironically, the small number of new suburban riders gained by these policies is often exceeded by the reductions in ridership on inner city bus lines brought about by increased fares and the reduced quality of service. In addition, flat fee structures that charge the same fee to riders regardless of distance traveled are regressive because low-income riders take shorter trips on average than higher income commuters (Taylor and Wachs, 1995, Ong and Blumenberg, 1998, 1999; Cervero and Wachs, 1982; Cervero, 1990).

Jitneys and Informal Transportation Services

Efforts to reduce transportation costs and barriers have neglected to consider the important alternative of jitneys – privatized, *low cost*, flexible-route, demand-responsive transportation services-to fill gaps of public transportation (Garnett, 2001). Garnett (2001) argues the restrictions on their use make little sense given the ongoing success of bootstrap operations in Miami and New York and the potential to both transport people and put people to work. Commuter vanpools provided by welfare agencies are only a limited and temporary solution (Garnett, 2001). Car donation programs are better but limited, since it is probably infeasible to provide all welfare recipients with cars and this neglects working poor. Moreover, a single failure, such as a car problem or a missed vanpool, could be disastrous for those clients whose job stability is tenuous and fragile. Therefore, she argues, jitneys should be allowed to come in and fill the gaps of public transit where there is a viable market for them, and that to this end, legal restrictions that preclude jitney operations from entering the market should be amended.

Jitney operations began in the U.S. in Los Angeles in 1914. Their popularity grew rapidly and by 1915, more than 60,000 were operating across the U.S. Jitneys were 150-200 percent faster than trolley cars because they just carried between four to five passengers each with headways of only 5 to 6 minutes (Garnett, 2001). Because they were not confined to tracks, they also had the added advantage of providing flexible routes. The jitneys not only provided efficient transportation but much needed jobs during the depression. The streetcar industry lobbied for regulations to prohibit jitneys or heavily restrict them because of the competition to their industry. One year and half later

regulations were implemented in numerous cities and jitneys disappeared as fast as they had come.

Past evidence of the potential of jitneys to serve urban poor is backed up by their current success in several cities in the informal and formal market. Currently, jitneys are particularly well established and flourishing in at least two cities, New York and Miami, despite laws prohibiting or greatly restricting their operation. In New York, illegal jitneys have served residents for decades and are a vital form of transport in low-income neighborhoods, which medallion-carrying cabs ignore and which are underserved by public transit. Jitneys got their start in New York during a series of public transit worker strikes in the 80's where they filled in for needed service. They remained even after the strikes ended and have grown through the 80's and 90's despite efforts by transit authorities to suppress them.

Dollar vans are one of the few authorized jitney services, which are commuter vans operating exclusively in the outer boroughs in New York City and serving as a substitute for feeder buses leading to subway stations. While these vans are prohibited from accepting street hails or operating on bus routes, they frequently do both. They have semi-fixed routes and flexible drop off and pick up points and are willing, for a small additional fee, to provide door-to-door service, which is highly valued by women working late shifts for safety reasons. Based on interviews with dollar van customers, Garnett (2000) found that the vans can cut commutes in half compared to the public bus and are valued for their late night service. Customers reported that there were very short wait times for the vans even late into the night.[26] These customers also reported that they were very pleased with the van drivers because unlike those of public buses, they frequently lived in their neighborhoods, were very courteous, were willing to help with groceries and waited till children were seated before taking off.

In Miami, jitney services are also thriving. Having been a legitimized component of the transportation system since WW II, a law was passed in 1983 placing a moratorium on additional licenses due to concerns that their proliferation was detrimental to the public transit revenues. They later restricted jitneys from operating on metro bus lines or within a half mile of any major transit corridor. When the state legislature passed a law prohibiting cities to regulate jitneys for intercity travel, jitney services grew tremendously but where then curbed when the legislature amended this law to include only inter-county services. However, illegal jitneys have continued to enter the market and flourish, despite periodic enforcement sweeps where drivers are issued citations and their vehicles impounded. In 1992, a study conducted by the FTA found that 393 jitneys were operating in Miami, carrying numbers of passengers approximately equating to 23-27 percent of the Metrobus ridership (Garnett, 2001). According to this same study, 65 percent of riders reported riding jitneys because they were faster than the Metrobus and 25 percent cited lower price as the reason (Garnett, 2001*)*.

[26] Author did not conduct a formal survey method but gathered anecdotal information while provided legal representation to for several van operators and spending considerable time riding in vans and speaking with customers.

Garnett (2001) argues that the prevailing success of jitneys is evidence that public transportation in these places was inadequately serving the public, particularly low-income riders. According to her, jitneys, if made legal, could fill niche markets and serve places currently underserved, or not served at all, by public transit. She emphasizes that it's not certain whether they would be successful in every environment, but nevertheless there is no justification for the prohibition or excessive restrictions across the country. However, one weakness in her argument is her failure to address the degree to which their competition with public transit is a threat to its viability and what could be the costs or impacts on transportation services overall under this scenario. For example, would these benefits gained by jitney riders be less than the costs to those using public transport?

Because jitney businesses require little training and capital investment they are also good sources of jobs for poor, although she does not address whether these jobs would provide good career ladders or wages. According to her analysis, not only should laws restricting and prohibiting jitneys be repealed but laws requiring would-be entrepreneurs to prove the necessity of their business should be removed since they serve as formidable barriers to market entry for low-income entrepreneurs who often have little resources to help them effectively make their case.

In Los Angeles, Professor Giuliano at the University of California at Los Angeles (UCLA) conducted a study of neighborhood carpools. She found that drivers, who are usually female, and earn income providing rides to neighbors, for a typical charge of $1.00 per trip. The passengers, who are also primarily female, usually have no access to a private vehicle and are very low-income, use the carpools because they are faster, more convenient (offering door-to-door service) and perceived as safer than public transit (Blumenberg, 1998b).

A forthcoming dissertation by PhD candidate Alfred Round, in the UCB City and Regional Planning Department, evaluates technology-based, demand-responsive shared ride transportation systems with an eye towards their application in providing fast, affordable and flexible transportation to work for welfare recipients. Smart or technology- based transportation uses a combination of computer optimization algorithms and wireless communication technologies to coordinate routing, in real time, order to achieve a time efficient service. Using methodologies from the field of Operations Research to simulate three variations of this type of service, he found substantial reductions in time relative to public transit for many combinations of service operations. For example, the most time efficient service option, is estimated to achieve a 25 percent reduction in travel time relative to transit for West Oakland residents, who are already well-served by public transit. He concludes that smart, demand-responsive, transit services have the potential to save welfare to work and low-income populations substantial amounts of travel time and to expand the geographic range of job opportunities accessible to them.

Taxicabs

Poor populations spend higher shares of their income on taxicabs (Suzuki, 1995). One study by Suzuki (1995) examines various illegal taxicab operations in an effort to ascertain the possible benefits of lowering barriers to market entry for taxi cabs through industry deregulation. While politically unpopular among current legal taxi drivers, the abolition of medallions and high insurance fees could result in lower fares and increased service for everyone. However, even slight regulations, such as those insuring safety, would be likely to discourage vernaculars from entering as legitimate operations according to his analysis. He concludes that deregulation would probably work best in small communities.

Carsharing

Carsharing is a concept started in Europe and has recently made its way to the United States (Loveless, 1999). It is more affordable than owning a private automobile, with costs averaging from approximately $0.30 to $0.35 per mile, because costs are spread out over several members. Carsharing is most economical for those who drive fewer than 10,000 miles per year (Litman, 2000). Having lower fixed costs and higher variable costs (associated with vehicle miles traveled), than private vehicle ownership, it has the potential to be an affordable option for low-income households (Litman, 2000, STPP, 2002).

Pay as You Drive Insurance

Up to 22.8 percent of the cost of owning and operating a vehicle goes to insurance. Therefore, shifting insurance costs from a fixed, monthly fee to a variable fee based on the number of miles driven per month could reduced costs significantly for those who have shorter commuting needs (STPP, 2002).

Van Pools

Employer supported vanpools that would carry workers to job rich suburban areas have been suggested as a solution since public transit is expensive to provide in this context (Ong and Blumenberg, 1999).

One Size Does Not Fit All

Ong and Blumenberg (1999) and Wachs[27] emphasize that because low-income populations are heterogeneous, transportation solutions must be multi-faceted in order to address differences in needs. Likewise, Blumenberg (2002) argues for a tailored approach to mobility solutions, providing improved transit between and within neighborhoods where low-skilled job accessibility is high and promoting more flexible modes such as private autos, flexible route systems and carsharing in low job accessibility areas.

[27] Views were summarized in UCLA conference proceedings (Blumenberg, 1998b).

Welfare to Work Populations

Welfare-to-Work Programs

With the passage of welfare reform, transportation costs as a barrier to work have gained widespread attention (Loveless, 1999). Analysts have identified transportation as one of the most significant impediments to employment for welfare recipients (Ong and Blumenberg, 1999). As a result most states are addressing the transportation needs of welfare to work clients though several programs, some of them very innovative (Waller and Hughes, 1999). These programs vary among states and counties. Many have raised or eliminated their asset exemption for vehicle ownership and offer transit subsidies and gas and mileage reimbursements, and several have instituted demonstration projects such as demand responsive shuttle van services and emergency ride home programs.

Follow-up studies are being conducted in some cases but comprehensive and connected databases that would enable ongoing tracking and studies of caseloads have not been widely established (Loveless, 1999). Preliminary feedback has highlighted the problem with a lack of long-term funding for the continued support of demonstration projects leaving many welfare recipients, with newly found jobs, without a reliable means to get to work (Loveless, 1999). Garnett (2001) criticizes programs for not going far enough in that they are limited to helping only welfare recipients and not working poor, and are short term, leaving recipients where they began when benefits end.

Waller and Hughes (1999) surveyed programs assisting welfare recipients in the ten states with the largest welfare caseloads in 1998. Based on the analysis of their survey they recommend the following: 1) Transportation assistance programs should be based on income not current or recent receipt of TANF. This would have the added benefit of not triggering time limits for benefits, 2) TANF funds should be used to assist low-income workers with car purchases and 3) Access to Jobs and Reverse Commute program should be fully funded by congress and these funds should go toward local transit with the condition of public-private partnerships where private employers pay for part of the costs of increasing public transit to their worksites. New regulation now permits the use of TANF funds on the basis of income rather than welfare status.

They raise several important questions regarding time limits placed on transportation assistance by programs including:

- Do they have the effect of increasing recidivism of TANF clients?
- What happens when people leave welfare system?
- Do wages rise fast enough to enable workers to cover their transportation costs?
- Are they able to purchase their own vehicle?
- How do vehicle purchases, particularly older cars, affect household budgets?
- Are former welfare recipients moving closer to their jobs or finding new jobs nearer to home?
- How does bearing full transportation costs affect household consumption of other necessities such as food, shelter and clothing?

Through their survey they found:

- A wide reliance on transit vouchers and mileage reimbursements.
- All ten states limit assistance for transportation to current or recent welfare recipients.
- California limits monetary assistance to the cheapest available alternative, ignoring time costs associated with transit.
- All ten states surveyed allow the use of TANF funds to pay for car repairs.
- Some states help clients get drivers' education and licensing.

Welfare Population Needs and Policy Solutions

Blumenberg (2000) emphasizes in her policy analysis of welfare to work transportation strategies, that transportation programs must be sensitive to the distinct needs of employed women, particularly those with children, who typically bear the responsibility for household-serving and childcare trips. She questions the degree of need for reverse commute programs and the applicability of the spatial mismatch hypothesis to women. Specifically, she recommends:

- The enhancement of public transit along routes within and connecting job rich neighborhoods to each other.
- That transit agencies shift their spending from services aimed at enticing white males out of their cars and into rail to those that will better serve low-income women living in the inner city who are more transit dependent.
- The establishment of car programs and flexible route transportation services in job poor neighborhoods.
- The provision of long distance transportation services for those who need them.

Professor Evelyn Blumenberg at UCLA is currently drafting a literature review on transportation and welfare recipients. Her review to date covers literature on the travel patterns, commute times, and expenditures of welfare recipients as well as the degree of spatial mismatch between welfare recipients and jobs identified in various metropolitan areas in the literature. She found variability in the nature of spatial mismatch cited in the literature, for welfare recipients, with some areas representing the classical central city-suburb mismatch and others containing more complex neighborhood level patterns of mismatch. Like this review, she also examines the literature on improving access to private autos and public transit. Lastly, she summarizes various demonstration projects such as the Joblinks Program and Bridges to Work.

Work by Pugh (1998) also examines spatial mismatch studies of welfare recipients and jobs and finds that the degree and patterns of spatial mismatch are heterogeneous. She recommends that policies be integrated with other services and that services remain flexible to serve work schedules of entry-level workers. Transportation policy should aim to create more equitability within the transportation system rather enact "special" programs for inner city low-income groups. Finally, inner city development, the

promotion of affordable suburban housing, and increasing mobility should not be considered mutually exclusive policies, but rather complementary programs that may work together to achieve increased economic opportunity for poor. For example, increasing mobility out of the inner city can increase income flows to the inner city and aid inner city economic development.

A Los Angeles based study assessed the needs of the CalWorks population in Los Angeles (Moreno et al., 2000). They found that because there was a relative paucity of jobs within the neighborhoods of CalWorks clients, that most would need to travel outside of their neighborhoods to access jobs. The areas with the highest concentrations of welfare recipients had relatively adequate job accessibility however, 36 percent live in low transit accessibility and low job accessibility neighborhoods. Approximately 24 percent of trips taken adult CalWorks clients are as a passenger. In areas of low transit accessibility there is a high demand for informal carpooling services whereby drivers charge passengers a fee for a ride. Transit users were twice as likely as others to report transportation problems as a barrier to work. Some participants found travel to childcare necessitated by the work requirement difficult to manage in conjunction with the work commute. The ability to respond to their children's emergencies during the workday was a great concern to parents, particular for those without access to a reliable car.

Another study, on Los Angeles welfare recipients, found that many welfare recipients live in job rich areas and are able to reach many job locations easily by car or public transit, while others that live in job poor neighborhoods, have significantly reduced job accessibility due to their dependence on public transit (Blumenberg and Ong, 2002). Public transit in these neighborhoods tends to be slow and unreliable. They recommend that policies that address the transportation needs of welfare recipients be tailored to the characteristics of individual neighborhoods in which welfare recipients live. For example, in job rich neighborhoods with poor transit services, improvement of these services would be an effective strategy because the distances to job sites are manageable given a well functioning transit system. In job poor neighborhoods they recommend non-traditional public/private services such as non-fixed route transportation, carsharing, and low-cost auto loans.

Other Publications on Transportation

This review has focused on research related to transportation for low-income populations. Publications that do not focus on low-income populations or those that are not research reports are outside of the scope of this review. This section offers citations for two such publications that may be of particular interest to readers.

World Class Transit for the Bay Area, a publication of the Bay Area Transportation and Land Use Coalition (2000), proposes several projects for the Bay Area. The proposal seeks to "vastly improve the use of our existing transportation infrastructure, including nearly 18,000 miles of roads and 600 miles of rail tracks. With cost-effective projects, this proposal would provide transit that is fast, convenient, affordable, and could be ready within just a few years." See http://www.transcoalition.org/wct/introduction.html.

Getting To Work: An Organizer's Guide to Transportation Equity, a publication of the Center for Community Change (1998), describes the federal transportation bill of 1998 that provides resources designed to improve transportation in low income communities. The publication explains the new law and "how to organize around transportation issues." See http://www.communitychange.org/pub-policy.htm.

2. Ongoing Research Projects

Introduction

This chapter describes ongoing research projects related to the subject of transportation affordability. Research projects were included if they focused on either the San Francisco Bay Area and travel patterns, or low-income populations and transportation.

Information on ongoing research projects was gathered through a variety of methods. The websites of each of the following institutions were searched for related ongoing research: 1) University Transportation Centers (UTCs) (includes 33 centers, see Appendix A), 2) the University of California at Berkeley Institute of Transportation Studies (ITS), 3) the Department of Transportation, 4) the California Department of Transportation, 5) the Transportation Research Board (TRB) and 6) the Metropolitan Transportation Commission (MTC).

In addition, a general "google" search was conducted for any research projects. Finally, emails inquiring about projects were sent out to the Advisory Committee and the directors of each of the UTC's. A majority of the projects that were discovered came from the University of California Transportation Center website, as many of the other UTCs have focuses related to technical, engineering and physical aspects of transportation. Text describing the projects was copied and pasted directly from websites and email correspondence into the project descriptions sections in this document.

This chapter is structured by research topic. The Table of Contents (see page iii) may be used as an index to locate specific topics and projects.

Spatial Patterns, Commute Time, and Labor Markets

The Effects of Urban Land Use Patterns on Household Trip-Making Behavior: An Empirical Analysis

Principal Investigator:
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Objective: Improve understanding of the effects of urban land use patterns on household trip-making behavior.

Abstract: Little empirical work has been done to confirm or reject the belief, held by most planners, that land use patterns and forms significantly affect travel behavior. Studies of household trip-making behavior typically focus on household economic and demographic

characteristics, regional activity patterns and densities, and the availability and cost of competing travel modes, usually to the exclusion of local land use measures. We propose to measure the statistical relationships between non-work travel behavior in the San Francisco Bay Area and the distribution and quality of nearby land uses (including transportation facilities and transportation-related land uses). Using 1) a 1995 household travel survey conducted by the Metropolitan Transportation Commission, and 2) a data set or urban land uses collected by the Association of Bay Area governments, we propose to test the hypothesis that households which reside in cities with a "fine-grained" land use (and street) pattern--where land uses and activities are contained in a small area--will make more home-based trips, and will make greater use of non-auto travel modes as compared with demographically similar households residing in communities with a more homogenous urban land use pattern.

Expected completion: 2002.

Using the Spatial Configuration of Cities to Estimate the Impact of Commuting Time on Hours of Work

Principal Investigator:
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Objective: improve understanding of fixed time costs on labor supply and estimate elasticity of hours of work with respect to commuting time

Abstract: We propose what we believe to be the first study of the causal impact of fixed time costs (commuting) on labor supply. While a limited number of studies have estimated the correlation between hours of work and observed commuting, none have dealt with the endogeneity of commuting and thus yield biased estimates. We propose to isolate the exogenous impact of commuting using a novel instrumental-variables approach based on the dispersion of residential locations within and across cities. A credible estimate of the elasticity of hours of work with respect to commuting time is clearly important to our understanding of labor supply behavior and therefore the reaction of people to urban transportation policies aimed at changing commuting patterns.

Expected completion: July 2002.

The Long and the Short of It: Low-Wage Workers, Commute Distance, and Earnings

Principal Investigator:
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The theoretical literature on earnings and commute distance leads to the hypothesis that labor markets compensate workers for greater commute burdens. However, this relationship may not function at the bottom end of the labor market. This project examines the effect of commute distance and mode on the earnings of welfare recipients in Los Angeles and Fresno Counties. The results of this study will have implications for the development of policies to address the geographic mobility of low-wage workers.

Expected: Spring 2003

Systematic Transport Access and Policies for Low Wage Labor Markets

Principal Investigator:
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Other Key Participants:
Steven Raphael, University of California, Berkeley

Objective: To understand the links between spatial access and labor market outcomes for low-wage workers.

Abstract: This research helps to understand the linkages between spatial access and labor market outcomes for low-wage workers, especially teenagers, minorities, and welfare recipients. The work includes: (1) an analysis of the effect of transport improvements upon minority employment, (2) an analysis of spatial isolation and teenage employment, (3) an investigation into whether auto access "causes" higher levels of employment.

Expected completion: 2002.

The Accessible City: Employment Opportunities in Time and Space

Principle Investigator:
Lauren Margaret Scott
Joint Geography Doctoral Program at San Diego State, and UC Santa Barbara

Abstract: Explosive suburban employment growth, declining residential densities, consequent new patterns of cross-commuting, economic restructuring, and rapid developments in transportation and telecommunications technologies are having a dramatic impact on the urban landscape. How are these spatial processes impacting intra-metropolitan accessibility and what are the implications? While the concept of accessibility provides a basis for a variety of urban policy and planning decisions, represents a common focus for a large body of geographic research concerned with urban economic growth, urban spatial structure, and social equity, and serves as a cornerstone in urban economic theory, it remains a difficult concept to operationalize. This research presents an analytical framework for evaluation, representing, and monitoring changing intra-metropolitan accessibility to employment opportunities. More specifically, it (1) determines how accessibility has been defined, modeled, measured, and interpreted; (2) suggests a new approach for evaluating intra-metropolitan accessibility founded on the Couclelis proximal space construct, the Getis/Ord Gi spatial statistic, a level-of-service definition of accessibility, multiple scale analysis, and a multi-dimensional conceptualization of accessibility; and (3) applies this analytical framework, implemented within a GIS environment, to employment data for the Greater Los Angeles region.

Residential Location and Travel Behavior

Transit-Based Housing: Residential Sorting and Its Influence on Mode Choice

Principal Investigator:
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Objective: improve understanding of effects of transit based housing on residential location choice and mode choice

Abstract: This research examines the impacts of transit-based housing on both residential location and mode choice. The degree to which ridership benefits are a product of self-selection or the inherent advantages of proximity to transit will be gauged. An operative hypothesis is that high ridership is a product of households conscientiously sorting themselves into rail-station areas for the very purpose of economizing on commuting. Living near rail stops is thought to also lower vehicle ownership rates. The combination of "residential sorting" and fewer cars are thought to be dominant factors in explaining mode choice for journeys to work. This hypothesis will be tested using nested logit models and year-2000 data on residential location, car ownership, and commute mode choice from the San Francisco Bay Area. Models will predict whether households reside within a half-mile ring of a rail station and how this in turn influences mode choice. Separate analyses will be carried out for the BART heavy-rail system, the CalTrain commuter rail system, and the VTA light-rail system. The results of the research will help

inform policy-making in the areas of transit joint development and affordable housing production, including policy initiatives like Location Efficiency Mortgages.

Expected completion: July 2002.

Dissonance between Desired and Current Residential Neighborhood Type: Relationships to Travel-Related Attitudes and Behavior

Principal Investigator:
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Other Key Participants:
Prof. Ilan Salomon, University of California, Davis

Objective: improve understanding of residential location preferences and their effects on travel behavior

Abstract: Little research has been conducted into the extent to which residents of a particular neighborhood are currently mismatched in terms of the land use pattern of their desired type of neighborhood. Such an investigation could offer new insight into the nature of the association of land use configuration with travel behavior. For example, to the extent that the travel behavior of mismatched residents is very similar to that of well-matched residents, it would provide some support for the contention that the land use configuration itself is able to elicit certain travel behavior, even against a predisposition that is different. On the other hand, if travel patterns differ between these two groups, it is important to explore the extent of mismatch in the population (indicating a higher propensity to change neighborhood types), and the extent to which observed travel patterns for a certain land use type are affected by the behavior of mismatched residents. We propose to investigate these and related questions, using previously collected data from 1,900 residents of three San Francisco Bay Area neighborhoods.

Expected completion: July 2002.

Does Commuting Distance Matter? Commuting Tolerance and Residential Change

Principal Investigator:
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Objective: To examine the tradeoff between commuting and housing locational choices by looking at the changing interaction of residence and workplace.

Abstract: Do individuals and households (two workers) minimize commuting distances when they change residences? What is the nature of the commuting threshold in polycentric cities? These questions are a central part of our continuing attempts to understand the trade-off between commuting and housing locational choices. To examine these questions we use a probability model to assess the likelihood of increasing or decreasing commute distance (and time) with relocation within the urban area. Although studies of migration have often linked job changes and inter-state moves, there are few studies that examine the changing interaction of residence and workplace. Yet, it is just such changes that have implications for local transportation policy and planning. The study will provide answers to the question of how sensitive households are to commute distance and the separation of residence and workplace.

Expected completion: 2002.

Assessing the Influence of Residential Location Changes on Travel Behavior

Principal Investigator:
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Objective: This research aims to determine the immediate and longer-term impacts on travel behavior of a household relocation

Abstract: When a household relocates, what are the immediate and longer-term impacts on travel behavior? How do household travel patterns evolve? This project proposes to use technologies developed in prior UCTC, PATH, and Testbed research projects to facilitate the observation of a small number of households re-locating from other areas in Orange County, CA to selected new home developments in Irvine. We will install in-vehicle GPS/Wireless Communication units in all household vehicles to measure specific vehicle use for a multi-day period prior to moving, upon re-locating, and a few months after relocating to Irvine. We will also have the sampled households use iCHASE, computer-based survey research software developed in prior UCTC research, to record their household activities during this same period. We will utilize GIS-based data sets depicting both the local activity-systems and transport networks. Together, these data will enable us to address the immediate changes in travel behavior upon relocation, and to assess the evolution of stability in this behavior over time.

Expected completion: 2002.

How Does Travel Behavior Change When Households Change Jobs?

Principal Investigator:
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Objective: improve understanding of transportation and residential location choice in two-worker households.

Abstract: Research with a previous grant from UCTC established the relationship between the probabilities of moving closer to the job with increasing distance from the work place. Households beyond a threshold distance moved closer to the job when they changed residence and the probability of moving closer increased with greater work-residence separation. The current project builds on that research and examines the actual commuting behavior of workers in two-worker households when they change jobs. Do workers minimize commute distances in response to job changes and, when they change jobs do their travel patterns and travel modes change, and if so in what ways? The new research project uses panel data on travel to examine hypotheses about commuting distances, commuting times, mode choice and changing spatial patterns of employment. The study will provide important new data on how two-worker households negotiate job changes to minimize commuting.

Expected completion: July 2002.

Putting Behavior in Household Travel Behavior Data: An Interactive GIS-based Survey Via the Internet

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Objective: Improve understanding of household travel behavior by using an interactive GIS based survey via the internet.

Abstract: This project is the 2nd phase of a two-year project. A computer-based household activity survey program, CHASE, will be re-programmed, enhanced, and extended for internet application (iCHASE), integrated with a GIS, and utilized in a pilot study to collect data for a study of the determinants of travel and activity behavior in households. The result will facilitate identification of inter-relationships among a range of

revealed travel and activity participation variables leading to the identification of what are critical variables, relationships, and rules that govern that behavior.

Expected completion: 2002.

Development of Estimation Procedures for Activity-Based Model Forecasting

Principal Investigator:
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Objective: Improve understanding of procedures for activity-based model forecasting.

Abstract: The activity-based modeling framework offers an analytical option for estimating the relative importance of factors associated with the spatial and temporal interrelationships among the out-of-home activities that motivate household's needs or desire to travel. Demand estimation within the activity-based modeling framework is seen to provide both necessary constraint considerations on the household's decision alternatives within a utility-maximizing structure and a convenient mechanisms for generating the set of feasible alternatives that are likely to be considered. This study is based on previous activity-based research conducted by the principal investigator and his colleagues, and will be directed toward developing a practical estimation procedure to enable the use of a mathematical programming activity-based model as a demand forecasting tool.

Expected completion: 2002.

Public Transit and Livable Communities: Corpus Christi After Evaluation

Principal Investigator:
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Objectives: The research project will focus on the following three objectives:

- To assess the impact of the RTA Livable Community Initiative on the Corpus Christi community.
- To conduct a review of Livable Community initiatives in Texas and the United States.
- To identify effective approaches to Livable Communities for greater use in Texas.

The results of this research project will be documented in a final report. This report will summarize the results of the review and of the impact of the RTA initiative, using the before evaluation as a benchmark.

Abstract: The Federal Transit Administration (FTA) has a major initiative underway focusing on using transit to enhance livable communities. The Corpus Christi Regional Transit Authority (RTA) received a Livable Community grant from the FTA in 1995. This grant has been used to make physical improvements around two of the RTA's transit stations, located in a low income area of the city, and to develop additional social service programs to serve local residents. Assessing the impact of this project, as well as other FTA Livable Community projects throughout the country can provide a better understanding of the role transit can play in ensuring sustainable transportation systems. This research project will examine the approaches taken by the RTA and by other Livable Community projects and the effects of those approaches on transit systems and the communities. The results of the research study will be of benefit to transit agencies, Livable Community grant recipients, community leaders, and others interested in the role of transit in sustainable transportation systems.

Expected completion: August 2002.

Welfare to Work Population

Measuring the Role of Transportation in Facilitating the Welfare-to-Work Transition (Third Year)

Principal Investigator:
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Other Key Participants:
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Objective: This study will examine how transportation can enhance or hinder access to jobs and childcare, and the role of transportation in facilitating welfare-to-work in Los Angeles, Fresno, and Alameda Counties.

Abstract: This is the third and final year of our assessment of the role of transportation in facilitating welfare-to-work in Los Angeles, Fresno, and Alameda Counties. The study will go beyond the role of personal characteristics (e.g., education, age) and examine how transportation can enhance or hinder access to jobs and childcare. The three counties provide us with a valuable comparison of two different major urban areas and one

agricultural-based area. We have received and processed the following at the state level: 1) the welfare and employment histories (1993 to 1998) of millions of recipients, 2) 1998 information on nearly a nearly a million private-sector establishments, and 3) detailed 1998 audit data on several thousand recipients. For Los Angeles, we have: 1) assembled an extensive inventory of the public transportation system, 2) received and analyzed data on 1998 child-care providers, 3) conducted (with other agencies) a 1999-2000 survey of the transportation patterns and needs of 1,600 recipients, and 4) surveyed in 1999-2000 over 200 firms hiring recipients. For Alameda, we are working with the Public Health Institute to analyze the transportation questions in the Institute's survey of recipients in that county. For Fresno, we have received approval from the Board of Supervisors to access and use the county's administrative files, and we are planning to secure some survey-based data for recipients.

Expected completion: 2002.

California Transportation Needs Assessment: Welfare-to-Work

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The California Transportation Needs Assessment examines the spatial location of jobs, services, transportation for the State to determine where the transportation gaps are and how best to fill them. This work will identify and quantify regional and county transportation needs, barriers and recommend solutions regarding commute transportation among CalWORKs eligible participants and low-income individuals statewide in California. It will also provide a strategy for the allocation of funding provided through the Federal Transit Administration (FTA) 's Job Access and Reverse Commute Program provided to California. Applicants with a population less than 200,000 send their applications to Caltrans Division of Mass Transportation, which recommends projects for funding to FTA.

A CalWORKs eligible participant is a current or former CalWORKs participant. For this study, commute transportation is defined as transportation from the target audience's residence to childcare, training site and work site. A low-income individual is defined as whose family income is at or below 150% of the poverty line.

This project will focus on a comprehensive review and analysis of this target populations' residence, employment, training and child-care locations, availability of and accessibility to public transportation, resources needed to close the transportation gaps, and motor

vehicle licensing barriers. This project will also include production of a report, a presentation of report findings and collateral materials.

Expected completion: October 2002

The Transportation Behavior and Needs of Welfare Recipients

Principal Investigator:
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Objective: Improve understanding of transportation behavior and the needs of welfare recipients.

Abstract: This study applies survey research and data analysis to investigate travel patterns and identify transport needs of welfare recipients in two counties -- Los Angeles and Fresno. The research will examine the travel patterns/behavior of welfare recipients with a focus on Southeast Asians. Access to confidential data on welfare recipients will be obtained from county officials, and a sample of welfare recipients will be drawn from this database. A survey instrument will be developed, administered, and analyzed.

Expected completion: 2002.

Mobility Enhancing Strategies and Welfare Reform: Evaluation of Car Subsidy Programs in Iowa

Principal Investigator: Kelly Clifton
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Abstract: Transportation has been identified as a barrier that many welfare recipients face in finding and maintaining employment. In response, several programs have emerged to provide automobiles at little or no cost to persons in need. However, the effectiveness of these policies in increasing access to jobs and the enabling self-sufficiency has not been tested. The primary purpose of this research is to evaluate the impact of enhancing automobile access and ownership on the well-being of low-income families. A secondary aim of this study is to assess the different models of program administration for these car subsidy initiatives. The findings of previous research in this area suggest that increasing car ownership among poor and minority populations could

have positive effects on employment and self-sufficiency. Yet, these studies are largely cross-sectional in nature, comparing differences in employment and behavior between groups of people with autos and those without. The direction of the relationship between car ownership and employment has not been discerned and little emphasis has been placed on the impact of receiving an automobile on a particular household. This research sets out to fill this gap by testing the effects of subsidies for automobiles for economically disadvantaged populations on household travel behavior, activity participation, and household financial stability. Results will aid policymakers in crafting anti-poverty strategies that are more responsive to the transportation needs of welfare recipients. This study will focus on programs in the State of Iowa that aim to increase auto-ownership for their low-income clients. The research design is analogous to a pre-test/post-test quasi-experimental design; the receipt of an automobile is considered the intervention/treatment under investigation. The units of analysis in this study will be economically disadvantaged persons and their households. The test group will include clients of auto-ownership assistance programs that have received a car. The control group will consist of current or former welfare recipients that are not participating in the program. The focused interview will be the primary method of data collection.

Expected completion: December 2002

Van Pools, Taxis, and Informal Transportation

Planes, Trains, or Camionetas (little buses)? A Baseline Study of an Informal Travel Mode

Principal Investigator:
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Objective:. To document, and better understand the day-to-day functions and the consumers who use mini buses (vans).

Abstract: This work will provide a baseline case study of an informal transportation mode - camionetas or mini buses (vans). I propose to answer one important question. What is camioneta travel, and how does it function? Imbedded in this question will be the collection of data that will allow me to assess the extensiveness of this market in Southern California. Data collected from this initial study will be used as a springboard for a larger, more comprehensive research study on this burgeoning travel model.

Expected completion: 2002.

Vanpools as Alternative to Fixed-Route Service

Principal Investigator: Laura Higgins
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Objectives: This study will examine the innovative use of vanpools by transit agencies through case studies. Examples of possible case studies include Capital Metro and the Easy Street® system in Connecticut. The study will also examine the market potential for vanpool services. This assessment will include an examination of the socio-economics, trip patterns, land use characteristics, and other factors that appear to favor the use of vanpools as both a long-term strategy and as a way to introduce service that may later be replaced by fixed-route buses. The objectives of this research are as follows:

- To identify the factors that are favorable to vanpools as a public-transit supplement or alternative and
- To provide transit providers with techniques for assessing the vanpool market in their areas.

Abstract: Vanpools are one way of expanding public transit service into new markets and lower-density corridors. The proposed research will document case studies of transit-operated vanpools in the United States and within Texas, examine factors leading to successful vanpool programs, and develop guidelines and techniques for assessing the viability of vanpool programs in Texas communities. National case studies of vanpools will be conducted under SWUTC funding; the remaining tasks will be conducted if matching funds are received through the Coordinated Metropolitan Transit Authority Research Program.

Expected completion: August 2001.

An Assessment of the Procedures for Integrating Taxicabs into an Urban Environment

Principal Investigator:
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Objectives: This study will evaluate existing guidelines and restrictions placed on the taxicab businesses, and determine methods to seamlessly integrate them with existing public transit operations. This will include a review of the taxicab industry in cities where they are an integral part of the urban transportation infrastructure. A secondary focus will involve the use of taxicabs in rural areas. A determination of the transportation needs of

adjacent rural communities will aid in evaluating the possible uses of taxicabs as a link to public transit facilities such as park and rides or high occupancy vehicle lanes (HOVs).

Abstract: Transportation planners have discussed the possible integration of taxicabs into the urban environment with varying degrees of success. The guidelines that regulate taxicabs in most cities are designed to protect the public's safety and provide consistency among the many taxicab companies. In areas without public transit taxicabs may be the only form of public transportation available. The challenge in those cities that have public transit and taxicab companies is to seamlessly integrate all available systems of transportation into a network that would reduce congestion and improve regional mobility. The resurgence of the jitney as a form of urban transportation in niche markets may provide opportunities for the taxicab industry. Such niche markets include rural areas, dense communities of new immigrants, and participants in many of the local welfare to work programs. Government officials recognize the importance of transportation to welfare recipients in accessing employment, a nd further acknowledge that public transit may not completely provide the services needed.

Expected completion: August 2001.

Valuation of Time

Congestion Pricing and Diversity in the Valuation of Travel Time

Principal Investigator:
Jia Yan, UC Irvine
Adviser: Kenneth Small

This project will measure observed and unobserved diversity in value of time and value of reliability. Based on the estimated values, the project will investigate the implications of this diversity for congestion pricing policies. Sample enumeration methods will be used.

Forecasting Demand and Values of Travel Time Savings for Freeway HOV, Toll and HOT Facilities

Principal Investigator:
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Other Key Participants:
Thomas Golob, University of California, Irvine

Objective: improve modeling of toll facilities using panel data

Abstract: Accurate forecasts of demand for restricted roadway facilities – high occupancy vehicle (HOV) lanes, toll lanes (including congestion pricing), or combined HOV and toll (HOT) lanes on freeways and bridges – are key to the success of such projects. Yet the track record for predictions for such projects throughout the U.S. is dismal; transportation professionals have not been successful in understanding traveler behavior regarding such choice alternatives. The objective of the proposed research is to explore reasons for these failings and to make recommendations regarding priorities for better models. Alternative model specifications documented in the literature will be compared on a common dataset. The most effective dataset for this purpose is the panel survey collected in 1997-1999 for evaluation of the San Diego I-15 Congestion Pricing Project, combined with recorded toll data and traffic speed data from freeway loop detectors and floating car measurements. The key new feature of this work is the joint modeling of commuters' choices, perceptions of key trip attributes, and attitudes about road pricing. These variables will be related to commuter's sociodemographic information as well as objective traffic network data typically used in demand analysis. This new model will be designed to predict both the economic and political feasibility of a project.

Expected completion: July 2002.

Fare Reductions

Evaluation of the Alameda County Transit Free/Reduced Student Bus Pass Pilot Program

Principle Investigators:
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Description: On December 19, 2001, the Commission agreed to support a two-year pilot program to provide free AC Transit bus passes to low-income students in middle and high schools throughout the AC Transit service area. The purpose of the project is to demonstrate whether the provision of a free bus pass to low-income students increases their attendance at school and/or after-school activities. The Commission committed up to $1 million per year in Low Income Flexible Transportation (LIFT) funds for the two-year pilot period subject to a series of conditions that are outlined below.

MTC has authorized a $65,000 contract with the Institute of Transportation Studies at the University of California, Berkeley to conduct an evaluation of the pilot program in AC Transit's service area. The evaluation will compare school attendance records before and after implementation of the program. Focus groups, surveys and targeted interviews will also be conducted to ascertain factors other than the availability of free bus transportation that may affect school attendance for low-income students. The methodology for

conducting the evaluation is being developed by the principle investigators, and will be reviewed with the project stakeholders. The evaluation will also include a review of student fare policies adopted by other transit jurisdictions in the Bay Area and elsewhere to identify what could be effective alternatives that can increase attendance by low-income students. These will include programs at the San Francisco Muni, Santa Clara VTA, SamTrans, BART, Sacramento RT, and Portland Tri-Met. Based on information provided by AC Transit, the evaluation will also consider the impact this program has on operating school transportation services, due to the anticipated significant increase in ridership. An interim report summarizing the findings from the first year of the project will be presented to the Commission's Planning and Operations Committee at the end of FY2002/03.

Evaluating University Transit Pass Programs

Principal Investigator:
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Objective: Improve understanding of university transit pass programs.

Abstract: Several universities in the United States contract with their local transit operators to allow all students to ride public transit without paying a fare. Students simply display their university identification card when they board the bus. Twenty-five universities have been surveyed by the principal investigator to examine the cost and ridership for these fare-free public transit programs. All universities were enthusiastic about the programs but there has been almost no research to evaluate their benefits and costs. This research proposes to evaluate a pilot transit-pass program at the University of California at Los Angeles asking the following questions: 1) will it reduce parking demand; 2) increase student access; 3) improve transit service; 4) attract and retain students; 5) reduce the cost of a college education, and 4) reduce vehicle trips and vehicle emissions?

Expected completion: 2002.

Reconsidering the Effects of Fare Reductions on Transit Ridership

Principal Investigator:
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Objective: Examine the influence of fare reductions on transit ridership.

Abstract: This study will use national data maintained by the Federal Transit Administration and more detailed demographic, economic, and operating data for a sample of transit operators to examine the influence of fare reductions on transit ridership. Using data from the National Transit Database, we will first conduct a statistical analysis of the relationship between changes in fare levels and ridership on U.S. public transit systems, taking into account many of the factors shown in the literature to affect ridership. One goal of this first phase will be to identify cases where fare reductions have been associated with substantial ridership increases. These cases, which will almost certainly include the Los Angeles MTA during the mid-1980s and the New York MTA in the mid-1990s, will then be explored in more detail through interviews and examination of detailed budgetary, operating, population and employment data. We will attempt to isolate the role of fare reductions in stimulating additional ridership.

Expected completion: 2002.

Equity

Equity and Environmental Justice in Transportation

Principal Investigator:
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Objective: improve understanding of transportation equity and environmental justice

Abstract: The Environmental Justice movement in transportation has based many claims on concerns for equity in transportation finance and in the distribution of direct and indirect costs and benefits of transportation. Under Title VI of the Civil Rights Act and under several executive orders, the U.S. Department of Transportation requires transit agencies and metropolitan planning agencies to report on the equitability of their programs. In addition, there is a scholarly literature on the theme of equity and its measurement. This research project will review formal, scholarly definitions of equity and analytical measures by which equity in transportation can be measured. It will also review measures of equity used by public agencies as they comply with federal reporting requirements and it will review equity measures used by environmental justice advocacy groups. It will note consistencies and inconsistencies in these definitions, and will propose indicators of equity that can advance the cause of environmental justice by providing better measures for use in the analysis of transportation projects or programs. The project will produce a scholarly analysis of equity in environmental justice for transportation, and a primer on the measurement of equity for environmental justice advocates and transportation agency practitioners.

Expected completion: July 2002.

Environmental Justice and Community Impact Assessment for Transit Agencies

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Objective: To provide information and materials on issues and resources related to environmental justice, Title VI, and social equity using community impact assessment techniques. This project provide transit providers with tools to assess the impact of transportation actions and to work with communities to avoid, mitigate, or minimize these impacts and to develop transportation strategies that enhance communities.

Abstract: Since the issuance of Executive Order 12898 and the USDOT Order on Environmental Justice, transportation agencies have been asked to give more consideration to social equity issues in planning, project development, and throughout the delivery services. While the Federal Transit Administration (FTA) has not issued an order, the Federal Highway Administration (FHWA) and other USDOT administrations have done so. This project provides opportunity for transit agencies to begin to address these issues in a proactive manner. Community impact assessment provides techniques and tools for consideration of environmental justice, Title VI, and other social issues in the transportation planning, programming, and implementation processes.

Expected completion: 2001.

Ethnicity and Transportation

Impact of Ethnic Diversity on Transit: How Do Various Population Groups View and Utilize Transit?

Principal Investigator:
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Objective: California is now a majority-minority state, and many of the minority residents have an immigrant history. Knowing how various groups view and use transit would assist in planning transit service in the future for this growing population.

Abstract: The transit attitudes and behavior of three targeted ethnic segments will be identified using a survey questionnaire administered by telephone interviewing. The targeted segments are a) Asians, b) Hispanics, and c) African-Americans. With Asians and Hispanics, only first generation immigrants will be included in the sample. With Asians, the focus will be on first generation immigrants from China, the Philippines, and possibly Vietnam will be included in the sample as secondary data indicates that most Asian immigrants are from these three countries. In addition, nonhispanic whites will be included as a fourth study group for comparison purposes.

The primary study objectives involve: 1) The extent that the transit system meets the transportation requirements and needs of each of the three-targeted ethnic segments. 2) An identification of factors that differentiate transit choice riders from those who choose driving as their primary mode of transportation for those members of the study groups who have been transit dependent riders in the past.

Expected completion: April 2002 (for phase I)

Getting Children to School Safely

Evaluation of the Safe Routes to Schools Program

Principal Investigator:
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Other Key Participants:
Prof. Kristen Day , University of California, Irvine

Objective: evaluate safe routes to school program and efficacy of different neighborhood interventions.

Abstract: In this research, we will conduct a pre- and post-evaluation of the California Safe Routes to School (SR2S) construction program. The California SR2S allocates $20 million to local governments for street, sidewalk, and neighborhood and/or traffic design construction projects to improve the safety and feasibility of walking and bicycling to school. This program grew out of the confluence of several trends, including broad national interest in improving the livability and pedestrian friendliness of urban areas. We will select six SR2S sites, and six sites not in the SR2S program as a "control group." We will assess and document changes to SR2S sites that are associated with the

construction program, comparing changes to sites not in the program. We will observe pedestrian and bicyclist behavior before and after SR2S construction at each site, and will survey parents before and after SR2S construction at each site to obtain information on attitudes and perceptions of safety. These data will allow an evaluation of the effectiveness of different neighborhood and traffic interventions in improving the safety of children's non-motorized travel near schools, the frequency of walking and bicycling among children, and the interaction between perceived safety, traffic patterns, the physical environment, and walking and bicycling behavior.

Expected completion: July 2002.

Finance

Driving for Dollars: How the Politics of Finance Has Shaped the California Highway System

Principal Investigator:
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Objective: Improve understanding of the effect of politics on the California highway system.

Abstract: A clear understanding of how the politics of public finance has shaped the development of transportation systems is crucial if we are to effectively manage and develop transportation infrastructure in the future. This research relies on a combination of historical, quantitative, and qualitative methods to explore three questions: 1) why did California embrace a user-fee-based transportation system in the 1920s, and why the recent shift to non-user-based finance instruments?; 2) why has California been unable to adopt an effective, equitable system of heavy vehicle fees?; and 3) why are current urban freeway systems so different than the early plans for cities?

Expected completion: 2002.

Regional Transportation Infrastructure Finance in the United States: Influences & Trends

Principal Investigator:
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Objective: Improve understanding of regional transportation infrastructure finance in the United States.

Abstract: Most states have provisions by which counties or other regional authorities may adopt "local option taxes" to finance transportation investments. This study will seek to understand the basic characteristics of regional transportation finance in the United States, focusing on taxes adopted by counties and special districts in all fifty states that are earmarked for transportation purposes. It will examine the opportunities that state laws provide for the adoption of regional transportation taxes, the extent to which these taxes have been adopted, the relative importance of the revenues in transportation finance, and the means for making decisions about how these revenues will be utilized. Several research methods will be employed, including a survey of county officials, key informant interviews with state officials, and a review of state taxation laws.

Expected completion: 2002.

Miscellaneous

Optimizing Transportation Investments Within the Lac Courte Oreilles[28] (LOC)/Sawyer County (SC) Transit System

Principle Investigator:
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Objective: To assess the Lac Courte Oreilles and Sawyer County community's transportation research needs, strengthen collaboration between Sawyer County and Lac Courtes Oreilles community and determine opportunities for optimizing local and regional transportation investments.

Abstract: Utilizing Lac Courtes Oreilles (LCO) Casino revenue, the LCO Transit Committee has worked with Lac Courtes Oreilles Ojibwa Community College (LCOOCC) students and other community partners/volunteers to implement a joint mass transit system in conjunction with the surrounding Sawyer County Transit (SCT). The system has now been in operation for 9 months and serves over 1200 community members per month. Because the LCO Transit side has been completely funded by Casino revenue and managed/operated by a group of volunteers, no formal analysis of the system has occurred. In an effort to sustain and improve the current successful system, the LCO/SC Transit Committee is exploring federal and state aid in order to improve the

[28] Lac Courte Oreilles is a Native American Reservation and Tribe.

efficiency of operation by expanding collaboration between LCO and SC. More efficient ways to manage its assets and integrate this mode into local and regional transportation plans is needed. LCOOCC faculty and students will work in consultation with various transportation agencies to assess community transportation needs, compile accurate demographic and economic profiles for the LCO and SC community, assess transit modes within other tribal communities, and identify the benefits of a formal collaboration between Sawyer County and Lac Courtes Oreilles.

Expected completion: August 2002.

3. San Francisco Bay Area Transportation Assistance Programs

Introduction

Interviews were conducted with transportation specialists in each of the nine Bay Area county social services agencies and also with staff in transit and local government agencies, community based organizations, and charity groups around the Bay Area to gain a sense of the array of programs available to assist low-income families with their transportation costs. Over 60 organizations were contacted and 46 were interviewed (see Appendix B for a list). The chapter concludes with a brief discussion of funding for transportation assistance programs including the federal Jobs Access for Reverse Commute Program (JARC) and the MTC Low Income Flexible Grant Program (LIFT).

Social Services Agencies

Each of the county social services agencies throughout the Bay Area was contacted regarding the programs for CalWORKs clients and other low-income individuals. All of the agencies are mandated to provide transit fare assistance for local transit systems and mileage reimbursements. In addition, many offer shuttle services as well as emergency Guaranteed Ride Home Programs. Moreover, many have developed or are in the process of developing car donation or car loan and repair programs. Below is a summary of the programs that each county offers.

Alameda County

The Alameda County Social Services Agency provides several forms of transportation assistance to its CalWORKs clients including: free transit passes, trip planning and transportation mapping services, para-transit services, and vouchers for auto repairs. These services are now provided through the Southern/Eastern Alameda County Transportation Assistance Program (SEATAPP) through a contract with the Eden Youth and Family Center in Oakland.

The SEATAPP Program: The Eden Youth and Family Center contracts with the Alameda County Social Services Agency to provide a system of transportation services in partnership with several community based organizations in eastern and southern Alameda County serving CalWORKs clients. The contract is a pilot project that will run from July 1, 2002 through June 30, 2003. The SEATAPP program will assist clients with work-related transportation needs, such as transportation to training, employment and daycare facilities in an effort to increase their job retention. They will provide public transit assistance by providing bus and BART tickets to community agencies that serve CalWORKs clients. Through memorandums of understanding (MOUs) with auto repair shops and vouchers given to clients, they will continue to subsidize auto repair services.

Emergency transportation needs will be met through contracts with taxi and para-transit companies that will provide individual trips on an emergency basis.

Eligible participants include all CalWORKs clients who are in school, working or in a training program who have received aid in the last year. Car owners can receive the cash value of a bus pass, which is currently $49.00 a month. Clients whose one-way work trip takes more than one hour by bus or BART may be eligible to be paid a set amount per each mile that they drive. The SEATAPP is described in more detail in Appendix C.

Contra Costa County

In addition to providing transit passes and mileage reimbursements, the Contra Costa Employment and Human Services Department runs two shuttle bus programs: the Children's Transportation Project and Rides to Success. The Children's Transportation Project transports children of CalWORKs clients to and from daycare and school. There are nine vans running from 6am to 6pm weekdays during the school year and between six and seven vans running during the same hours during summer months. If children are under five years of age, parents are allowed to ride with their children in which case the driver will also drop the parent at their work or training site if it is close or to the nearest transit station. There is a high demand for the program and usually a wait list for clients who want to enroll their children. The program currently transports approximately 110 children per day during the school year. Clients must be referred by case workers to get into the program. The program was initially funded by a grant from the Department of Labor but since September of 2000 has been funded by CalWORKs money.

The Rides to Success Program transports clients to and from work sites, training programs and other job related trips. The hours of operation are Monday through Friday 5am to 10pm and weekends 7am until 6pm. This is a short-term service for the recipients with a one time limit of 50 rides, however for job training trips the limit is usually extended.

The Contra Costa County Social Services Department is in the process of developing a car loan program. The maximum loan would be $3,000 at approximately 7% interest rate (low for typical credit of a welfare recipient, usually would be 13-14%) and would be paid back over a two-year period. The recipient would have to show ability to pay back the loan in this time period. CalWORKs funds, of around $100,000 per year, are being put into the sponsoring credit union to back up funds. There is a second tier of the program for clients who cannot afford loans, whereby cars that are donated to the county are given to clients for a fee of $50 a month. Since, this is not an actual payment for the cars (since cars will be donated by dealers), the money will be put into a scholarship fund for the children of TANF clients. Additionally, they are also planning to offer a car maintenance class where clients will learn basics of car care.

Paul Branson, the Transportation Coordinator for the Contra Costa Social Services Department, noted in our interview that a big concern relates to what happens after recipients exceed eligibility requirements to receive these services or after they have used

their quota of trips since there are currently no programs to aid working poor in their transportation costs in the county.

Marin County

From the Marin County Welfare to Work Plan several programs have arisen to aid CalWORKs clients with transportation to work. However, several of these programs are threatened due to possible budget cuts. Their services include car repair assistance, bus ticket subsidies, and a taxi ride service that is no longer running.

Car Repair Program: The Marin County Health and Human Services Department works with a number of car repair shops that offer free car inspections and evaluations of repair needs. The department decides which repairs they would pay for based on the mechanic's report. The department aims to keep repairs assistance under $500, however, frequently repairs costs more and they have been flexible in the amounts they are willing to spend, which has made the program very expensive.

Taxi-Ride Service: In the past, the department has contracted with a local taxi company to provide rides to CalWORKs clients to and from work related programs (including training) and for special circumstances such as urgent medical needs.

Napa County

Napa County has just begun their Guaranteed Ride Home Program. Napa County CalWORKs clients who are registered and approved by a case worker and who are employed, have a verified job offer, or are enrolled in a school or training program may use the service. The need to be enrolled in the program must be identified by a resource specialist and the client must have completed or be in the process of developing an approved employment development plan. Once approved, the participant is eligible for 2 vouchers per quarter for a total of 8 per year, with a limit of $85 per voucher.

San Francisco County

In San Francisco the transit system is more extensive than other counties. With an extensive transit system, compact city and a diverse job market, 97-99% of clients are able to find jobs within the city, and are usually able to get to jobs in a reasonable time using public transit. To address affordability of this system, the San Francisco Department of Human Services gives clients bus passes and reimburses BART fares and auto mileage, to both CalWORKs and low-income clients for all job related trips. The county provides an employment assistance program for low-income populations. The typical client is a single male, often homeless and extremely poor. These subsidies continue for a year after the client exceeds income eligibility but this option is not often exercised by clients.

The department has looked into City Car Share as an option and wanted to use Jobs Access and Reverse Commute (JARC) money to fund it, but the grant criteria did not allow for funding because it has to be a service that is being expanded into a new area. Therefore, City Car Share could apply for funds to expand the program but the County

could not use this grant to subsidize costs. With a $300 deposit and $10 monthly service charge the county decided it wasn't an affordable program compared to subsidizing public transit. As well, most clients would have difficulty passing the background check required by City Car Share.

The department is in the process of developing a Guaranteed Ride Home Program (GRHP) which is a taxi-voucher system that is meant to be utilized in emergency situations for job-related trips including picking up sick children from daycare and mechanical difficulties with a car. This program will be available to both CalWORKs and Personal Assisted Employment Services (PAES) clients.

The Bay View-Hunters point neighborhood is an exception to other S.F. neighborhoods in that its transit accessibility is much lower and it can take an hour or more commuting in and out of the neighborhood to job centers within the city. The agency had plans to set up a shuttle service for these residents which would take them to jobs at the S.F. airport. However, the matching grant money from the Department of Health Services fell through after the 9/11 events which resulted in a hiring freeze and layoffs from several airport support jobs which employed and were expected to employ welfare-to-work populations. This program is on hold until funding can be secured.

Santa Clara County

The Santa Clara County Social Services Agency offers several programs to help their CalWORKs clients with transportation to work and work related activities. Some programs are run directly out of the agency and others are administered by non-profits that partner with the agency. In addition, the agency is in the process of developing a comprehensive transportation resource guide for CalWORKs clients. The guide includes useful information on transportation programs in the county including:

- Carpooling and ride sharing organizations,
- The Ways to Work-Family Loan Program for Low-Income Families,
- The OUTREACH Guaranteed Ride Home Program
- The OUTREACH Give Kids a LIFT! Program
- The Mileage and Bus Pass Cost Reimbursement Program, and
- The CalWORKs Jumpstart II Program,

The first four programs are offered by non-profits outside of the agency with some of these partnering closely with the agency. They are discussed in the non-profits section of this chapter.

Mileage and Bus Pass Cost Reimbursement Program: CalWORKs clients are provided with bus passes or mileage reimbursements for work and/or training trips. Participant's school-age children may also be eligible to receive bus pass assistance.

CalWORKs Jumpstart II Program: This program provides comprehensive automotive repair services for CalWORKs clients.

San Mateo County

The San Mateo County Human Services Agency has used Low Income Flexible Transportation (LIFT) grant money and TANF incentive funds to implement several strategies to overcome transportation barriers to employment that were identified in their Welfare to Work Plan. These strategies include 1) improved information and mobility and the hiring of a Transportation Coordinator, 2) emergency transportation services, 3) improved access to one-stop employment centers, and 4) increased affordability of transit.

They have developed several programs in line with these strategies to address transportation barriers including the creation of a mobility/transportation coordinator position, an Emergency Ride Home Program, and shuttle services to one-stop centers.

Emergency Ride Home Program: Provides a limited number of vouchers for car rentals and taxi service for emergency situations related to work transportation. The car rental option was implemented this July. The program will allow low-income working individuals to rent cars for commutes over 25 miles and covers up to $50 of the cost. Taxi vouchers are available to low-income individuals and CalWORKs clients. They are provided with 3 vouchers, each valid for a one-way trip, over a six-month period.

Improved Access to One-Stop Centers: The agency runs a free, fixed route, shuttle service that transports clients from the San Carlos Caltrain station to the Pennsiula Works One-Stop Center in San Carlos. The Harbor/Industrial shuttle runs daily from 6 am- 6pm.

The first residential shuttle in San Mateo County, the East Palo Alto Residential shuttle, has been modified to stop at the Menlo Park one-stop center and other social service agencies in the East Palo Alto area. This shuttle makes commute hour runs to the Caltrain station and will incorporate the one-stop center in Menlo Park to its route. This shuttle is a free service.

The coastal shuttle, serving the Half Moon Bay area, is currently expanding provide transportation over the hill to the Peninsula Works One-Stop Center in San Carlos. Participants can reserve a ride with 24 hours advance notice. The fare is $2 each way. The shuttles leave each weekday morning between 7:30 and 8:00 am and return from San Carlos at 4pm. There is normally one shuttle with a second shuttle operating on an as-needed basis.

The Pennisula Works One-Stop Center offers various social services including, employment, financial, vocational, children and family, alcohol and drug counseling among other types of services. The shuttle service is a joint project between the County of San Mateo Human Services Agency and the Coastside Opportunity Center.

Solano County

The Solano County Health and Social Services Department offers several transportation services to their TANF clients. The department provides bus passes, and under certain circumstances mileage is paid to those who use their own vehicles for transportation to work or other approved welfare-to-work activities. In addition, the department is in the process of developing a remote shuttle service, is currently operating an emergency ride home program, and is moving forward with the implementation of a car donation program.

Proposed Plans for Remote Shuttle Transportation: Since Rio Vista is remote from the rest of the county, the City of Rio Vista, the Solano County Health and Social Services Department, and Solano/Napa Commuter Information has proposed to start a van pool program for CalWORKs clients. There will be two vans: one that will travel to and from RioVista and the Ready Center and another to the local shopping mall bus connection. This connection will link Rio Vista residents to the main bus service. The estimated monthly fee will be $90-100 per month. For those participating in required activities this fee may be covered through CalWORKs transportation support service funds. Currently, there are 52 families on TANF in Rio Vista and it is estimated that a minimum of 14 people will want or need to use the system.

Emergency Ride Home Program: The SolanoWORKs Countywide Emergency Ride Home Services provides emergency transportation to active CalWORKs clients, those who have received assistance within the last 12 months due to increased earnings and have continued to work, or those who are actively participating in the Responsible Fathers Program. Applicants must be pre-approved and will receive a taxi voucher that they may use in an emergency from any point within the county to any destination including those outside of the county. The voucher may be used under the following emergency conditions:

- The client or an immediate family member suffers an illness, injury, or crisis
- The client is asked by their supervisor to work unscheduled overtime
- The client's ride-sharing vehicle breaks down or the driver must leave early
- The client has a break-in, flood, or fire at home residence
- The client's vehicle breaks down
- The client's vanpool or bus is late picking them up.

CalWORKs clients may use up to 6 vouchers within a 12 month period. A brief questionnaire must be filled out after each use of the emergency service. Because this program has been underutilized and very little funds have been expended, the department is thinking of considering a proposal to expand this service for more than just immediate emergencies. There are many clients who are able to use public transit to get to work in the morning but cannot get home at night and several who can get home at night but public transit cannot get them to work early enough in the morning. The department would like to provide taxi vouchers for a period not to exceed 90 days in order to give clients time to develop and complete a transportation plan that will include other modes of transportation that will meet their needs on a long-term basis. This change would not

require any additional funding since there are sufficient funds in the SCETS budget to cover this expansion of services.

Car donation program: The department has approval to move forward with the Car Adoption and Roads to Success (CARS) project. This would entail collaboration and partnerships with auto dealerships, the Automobile Association of America (AAA), local auto repair shops, community outreach partners, educators and others to help develop and participate in a car donation program. The agency plans to ask dealers to donate 30 cars a year (one to two per dealership) with market values between $4,000 to 4,500 each, which is a range of values that will not exceed the car asset exemption allowance. The incentive for dealers would be tax write-offs and positive publicity associated with helping the community. There will be an annual awards ceremony where auto dealerships will be given certificates and plaques and TANF recipients will come and talk about how receiving a donated vehicle helped them reach economic self-sufficiency. The department wants to try to get auto repair shops to offer auto inspections. Clients would participate in a workshop on car maintenance, possibly sponsored by an auto repair training institute or auto parts store. Those adopting vehicles will also be required to complete a workshop on money management. A valid driver's license must be obtained before receipt of a vehicle and the recipient must be insurable.

Children's Transportation Services: A local entrepreneur who operates a children's transportation service, called Kids Xpress, has expressed interest in expanding her service to low-income/welfare recipients at a subsidized rate. The county supported the recent LIFT grant application which was submitted to MTC the end of June. Funds from this grant will provide more vehicles and create greater access to childcare related transportation. Another proposal is that Kids Express may approach auto dealerships to request van donations in exchange for advertising. For example, they may paint the name of the auto dealership on the shuttle, advertising it as community business partnership.

Sonoma County

The Sonoma County Human Services Department has transportation assistance services, a car loan program, transit fare subsidies and a shuttle service.

Transit Assistance: The department provides CalWORKs clients transit passes or daily bus tickets for transportation to work, daycare and training programs. Clients are eligible to receive passes and tickets for up to one year after leaving the program.

Car Loan Program: The department has developed a car loan program in collaboration with the Jewish Family and Children's Services agency. The program is modeled after the Family Loan Program in San Mateo County. Loans can be obtained for car purchases, housing deposits, dental expenses for children, medical expenses, and childcare. Up to $3,000 may be loaned for car purchases. Between July 2000 and July 2001, eleven loans for cars and car repairs were made, totally more than $23, 710. The department provided $55,000 to the program last year and has committed $35,000 to the program this year. Low-interest loans at 4% interest and up to $3,000 for a car purchase or car repair are offered. The program offers a credit report and money management

counseling. The clients have up to 24 months to pay back the loan. The program began in January 2000.

Loan recipients must be low-income (usually half are TANF), however, there are no set income guidelines. They look at each person's situation to determine need for a loan. For example, a single parent with 4 children who makes 40,000 and spends $1,500 in rent would be considered for a loan. The applicant must be employed or in a vocational training program for at least 6 months prior to applying. The program partners with a local bank that administers the loans. Loans are secured through money that is deposited by the department, so even those who do not have good credit may qualify for a loan. Since the program's inception, about 50 loans, totaling $100,000 have been made. Seventy percent of these loans have been for transportation. They have a 90% repayment rate. The department follows up with clients on a regular basis and when they pay off their loan. They keep data on loan recipients but have not published any reports on the data to date.

Shuttle Service: A shuttle service transports CalWORKs clients (or those who have been CalWORKs participants in the last 12 months) to and from their homes to place of employment, day care centers or training centers. Clients may call a day in advance to reserve ride and can also have a daily scheduled service. This is a temporary service meant to fill-in until the client's main transportation service is resolved. A case worker must determine whether an individual needs and qualifies for the service. In the last quarter, average weekly riders were 276 and the program operated a total of 5 vans.

Another shuttle service is offered for foster children in the Independent Living Skills program for transportation to and from classes in the program. The program serves those in foster care who are nearing age 18 and learning skills for living on their own.

Transportation Needs Evaluation and Problem Solving: Case workers work with each CalWORKs client to determine transportation needs and to try to resolve transportation problems. The department can sometimes pay for car repairs. This is determined on a case-by-case bases. They can also help them with court processes and fees to renew drivers licenses.

Partnering with the Local Transit Agency: The department also works closely with the transit agency to identify neighborhoods with high percentages of CalWORKs clients and to improve transportation in those neighborhoods. CalWORKs clients tend to be concentrated in one zip code area located within the south-west quadrant of Santa Rosa city. Using JARC funds, they worked with the transit agency to increase bus service in this neighborhood. Periodically, the transit agency will announce free bus days and will communicate this information to the department.

Workforce Investment Boards

The network of "One-Stop" employment services centers operated under the Workforce Investment Boards throughout California offer transportation subsidies as part of a

package of support services for clients who are enrolled in any Workforce Investment Act program. These programs include: the Adult Program, the Older Youth Program and the Dislocated Worker Program. All the programs with the exception of the Adult Program, which serves individuals who fall below the federal poverty line, are open to the general population irrespective of income. Job seekers who are enrolled in a WIA program through a One-Stop center are provided bus and BART tickets or mileage reimbursement for school and training trips during their job search and training period. The Napa Valley Workforce Investment Board had a grant from the San Francisco Women's Foundation for the fiscal year 2000-2001 to provide car loans to individuals, however the grant money has expired and now they offer money only for car repairs.

Transit Agencies

All of the transit agencies offer various discounted fares for children, the disabled, seniors, and sometimes students. However only a few offer discount passes for low-income families, and most of these are specifically for homeless populations.

AC Transit, Alameda County

Student Bus Pass Pilot Program: In the fall of 2002, the AC Transit Agency will offer a free student bus pass to all Alameda County students who are eligible for the free or reduced-price lunch program. In addition, a monthly pass worth $27 will be offered at the discounted price of $15 regardless of income to all school children age 5 to 17.

Senior/Disabled Discounts: Monthly bus passes, which are sold at the adult fare of $50, are offered to seniors and disabled riders for $15.00.

Bay Area Rapid Transit (BART)

BART has no discounts for low-income populations however they offer reduced fares (75% discount from regular adult fare) for children, seniors and the disabled and allow children under 5 years of age to ride free. They also offer a special 50% reduced rate pass to youth ages 13 to 17, sold exclusively through high schools. However, this program is not well known or advertised, and is mostly offered through private high schools at this time.

Central Contra Costa Transit Authority (County Connection)

The Transit Authority sells single ride tickets to several social services agencies and community based organizations (CBO) within the county, who in turn distribute these tickets to their low-income clients. These organizations include:

- Contra Costa County Health Department
- The Phoenix Program
- The Regional Medical Center, Martinez (County Hospital)
- Martinez Detention Center
- Contra Costa Mental Health

Napa County Transportation Planning Agency (NCTPA)

The Napa County Transportation Planning Agency provides vouchers for a program in the Napa County Health and Human Services Agency. The Health and Human Services Agency operates an over-flow homeless shelter in the winter that is a few miles from the downtown area. Clients are provided with bus vouchers to transit to and from the center. The vouchers are paid for by the Health and Human Services Agency.

The Transit Agency is in the process of developing a new program with the Community Action group, a local non-profit. The program would encourage shelter residents to do community service during the day at other agencies such as the food bank. NCTPA would provide bus vouchers for homeless to travel to agencies for their volunteer work. Community Action would pay for bus vouchers at a discounted rate. The volunteerism would hopefully lead to employment for the homeless, help them learn new skills, and build on existing skills. NCPTA is considering a 50% discount on the bus vouchers sold to Community Action.

SAMTRANS, San Mateo County

Along with discounts for disabled and youth, SAMTRANS offers a free shuttle service and discounted passes to low-income students.

Summer Youth Program: This program offers a special rate of $25 (saves 62% off the normal price) for a three month summer pass to youth ages 17 years and younger.

Senior, Disabled and Youth Discounts: The transit agency offers Seniors, disabled, and youth the following discounts off the regular fare of $1.10 per ride:

- Seniors and Disabled Cash Fare: $0.50
- Youth cash fare: $0.75 (ages 7 to 17)
- Children 6 and under: free

Shuttle Program: SAMTRANS runs a free shuttle program that is open to the general public, but advertised mainly to CalWORKs populations, to public service agency offices, community colleges, community based organizations and one-stop centers. These shuttles were discussed above in the section on social service programs in San Mateo county.

Low-income Student Bus Pass: Students who qualify for school reduced or free lunch can purchase a monthly bus pass, regularly priced at $22, for $6. Passes are sold at schools. During 2001, approximately 600-700 passes were sold each month in the county.

San Francisco Muni

Muni offers monthly bus passes to homeless children. They also have low cost monthly bus pass ($8.00 per month) for students, seniors and disabled riders. The regular adult pass price is $35.00.

Valley Transit Authority, Santa Clara County

The Valley Transit Authority (VTA) provides bus passes at a subsidized rate to various homeless centers throughout the county. Normally sold for $40.00, the transit agency charges only $5 for each monthly pass, and the County of Santa Clara provides an $8.00 subsidy to the transit authority for each pass. On average, 700 passes are sold each month.

ECO PASS Program: The ECO PASS program, offered by the VTA, began in 1996. Through this program VTA sells bus passes at a discounted rate to employers and residential property managers. The bus passes allow unlimited use of VTA bus and light rail lines for a given period. This program began as an employer-sponsored program in 1996, but expanded in 1999 to residential property managers including apartment owners, condominium associations, townhouses, homeowner associations, and affordable housing developers. Residential property managers must purchase passes for all residents (over age 5) in the residential development.

Because costs are distributed over larger numbers of patrons, some of which do not decide to use the pass or who may use transit less frequently, the price for this *yearly* pass is substantially discounted. The discounted price ranges from $5.75 and $92.00 per year per pass, while the regular price of a *monthly* pass is $45.00. The discounted price is determined by the number of residents in the development and the proximity to transit lines. The passes are non-transferable and users must have photo ID on their transit cards. The primary objectives of the program are to provide more people access to transit, increase ridership, and reduce congestion.

Currently, there are ten communities of apartment complexes participating in the program. The majority of these are affordable housing units (6 or 7) and the remainder are market-rate developments. Many of the affordable housing developers fully or partially subsidize the already-discounted transit pass for residents. There have been no surveys on program participants to date.

Community Housing Developers: Community Housing Developers (CHD) operates two properties that use the ECOPASS program: The Candoas Terrace family apartments for low-income families and The Village at Willow Glen for low-income seniors. Both are located in San Jose. At both developments, ECOPASSes are fully subsidized with the exception of a $3.00 processing fee for the card and photo ID. The program at Condoas Terrace began last fall and has a resident participation rate of approximately 25%, with residents continuing to sign up through the course of the year. CHD must purchase passes for all residents upfront whether or not they will use the pass. The cost per pass is

$40.00 per resident per year at Condoas, where residents are a quarter or mile from light rail station, and $20.00 per resident per year at The Village at Willow Glen. The Village at Willow Glen development just opened this year and they are using the ECOPASS as an advertising mechanism to get seniors to sign up for the housing. The program is currently funded using CHD's general budget but they are looking for grant money to cover costs. Feedback from residents at Condoas, who are participating in the program, has been extremely positive. Sometime later in the year they are planning to conduct a survey of residents and their transit usage to ascertain the program's effectiveness.

Other Public Agencies

West Contra Costa Unified School District, Homeless Education Project

The West Contra Costa Unified School District provides bus tickets to homeless children, youth and their parents with the objective of insuring continued access to school and increasing school attendance rates. Many homeless families cannot afford bus fares particularly when they are displaced from their homes and subsequently have to travel longer distances to reach school.

Under the McKinney-Vento Homeless Assistance Act, the homeless have the right to stay in their "school of residence." Therefore the school district is responsible for making sure they have the means to access the school. The school district provides tickets to students based on need, which is determined based on the distance between where they are being sheltered and the school. They also give tickets to parents to accompany young children to school on the bus. Monthly bus passes are not provided because of the fear that they may be sold or misused. Instead, a designated school coordinator or support person gives out bus tickets on a daily or twice-weekly basis.

The district collects data and tracks attendance on every homeless child. A list of homeless children is maintained by the district, which is given to the principal and support person of each school. They track students if they do not remain same school to make sure they are receiving assistance. If they are still in the school district, they will provide tutoring and transportation assistance as needed. Using the data the district has collected, they assert that they have been able to show that if transportation costs are fully subsidized, attendance rates go up. They determined this by taking baseline measures of attendance rates for homeless children before they are given vouchers and comparing attendance rates after vouchers are given. They also compare homeless students to marginal students in the same school and against other students. Through these methods, they have been able to show that attendance rates increase when bus passes are provided. For example, in 1998-99, elementary homeless attendance rates were 92 percent and in 1999-2000 they rose to 94 percent (matching that of other students). In middle school, there was no change and homeless students attendance is only 81 percent compared to a district-wide average of 92 percent. In high school they were able to raise attendance from 81 to 87 percent. The district has also found that when homeless kids are in school more often, the discipline reports go down.

Approximately 900 homeless students attend the school district at this time. During the past school year (September 2001 to June,2002), the district provided 16, 725 student bus tickets and 2,110 adult tickets at a total cost of $27, 252. This is up from the previous school year when the district provided 13,714 student tickets and 2,276 adult tickets for a total cost of $22,604.[29]

Two sources of funding support the program: McKinney-Vento Homeless Assistance Act and Title One funds. In addition, under the Title One Act, reservation funds should be provided for a homeless liaison. Therefore, every school district must assign a staff person who is responsible for attending to the needs and tracking the homeless student population.

Pennisula Traffic Congestion Relief Alliance, San Mateo County

The Pennisula Traffic Congestion Relief Alliance is a public agency formed in 1992 by a joint powers act between fifteen cities in San Mateo County in response to legislation requiring employers to help mitigate traffic.

Commuter Shuttle: The alliance runs a free commuter shuttle service from BART and Caltrain stations to employers during commute hours. A total of 55 employers sponsor the program, sharing in half of the costs while the other half is paid for through public funds.[30] The shuttles are provided for employees of participating companies but are also open to the general public. These companies are located primarily in South San Francisco and Brisbane. The objective of the shuttle is to fill in gaps in transportation between rail lines and employers and to encourage commuting by public transit rather than single-occupancy auto in order to reduce congestion.

Residential Shuttle: Currently, they are in the process of developing a residential shuttle program to serve non-commuting needs within the county. This program will be supported by funds from the City and County Association of Governments (CCAG). Cities will be required to match 50% of funds. Routes are in the process of being developed. They are considering both flexible and fixed route structures. The impetus for this program stems from the gap in residential service left by the recent shift in bus service from residential service to feeder lines connecting riders to major rail transit hubs.

Non-Profits

Family Service Agency of San Mateo County

The Family Service Agency is a non-profit that runs a Family Loan Program, providing loans to low-income parents to help them maintain a job or continue their education. The loans are provided for expenses such as buying or repairing a car, paying for childcare, or buying a uniform or tools needed for a job. Loan amounts range from $500 to $3,000, repayment schedules vary from 6 to 24 months and are offered at affordable low-interest rates that range from 4 to 8 percent. The Family Loan Program is able to guarantee the

[29] Data is available from September 1997.
[30] Clean Air Act funds and the San Mateo Transit Authority.

loans through a default fund. The bank also agrees to accept a certain amount of default on the loans. The program enables families to pay for needed expenses and to establish a credit history. To be eligible for the program, the family must:

- Show financial need (low-income).
- Be able and willing to repay loan within two years.
- Be working or have verifiable income.
- Be able to demonstrate ability to make monthly payments.
- Be unable to qualify for other funding sources.

Since December 2001, the program has made 109 loans for car purchases and 17 loans for car repairs. The purpose of the car loan program is to alleviate time costs of transportation associated with both dependence on public transit and the increased trip chaining needs of parents. These lengthy commute times can jeopardize the job stability of low-income workers, create stress, and reduce the amount of quality time that parents have for their children. Owning a vehicle helps alleviate these problems.

The program keeps extensive statistics on loan recipients at the time of the loan and six and 24 months after the loan. They have found that large percentages of loan recipients have subsequently been able to reduce their time in transit to work and missed work time as well as improve their training program attendance rates and increase their income. While they keep thorough records on loan recipients, they do not yet have data on a control group making it difficult to statistically determine the degree to which the observed trends are attributable to the car loan program versus other economic trends in the county over the period.

The program is funded in part by a non-profit foundation called the Alliance which provides technical assistance and funding for loan programs across the country. The program has recently been replicated in Santa Cruz and San Jose.

The Family Loan Program has just received a grant from the San Mateo County Human Services Agency that will allow the program to add $2,000 in cash assistance to the $3,000 loan to enable loan recipients to purchase more reliable cars. This extra cash is a grant that does not have to be repaid.

Ways to Work-Family Loan Program, Santa Clara County

The Ways to Work-Family Loan Program, operated by the non-profit Family and Children's Services organization, provides low-income families with loans for items and expenses such as car purchases and repairs, child care expenses, housing costs or other expenses needed to maintain employment or to stay in school. Low-income Santa Clara County families may obtain loans of up to $4,000 for a used auto and $750 for auto repairs that do not exceed the value of the vehicle. Applicants must be:

- Employed for at least 20 hours per week and have been working for the same employer for at least six months OR currently enrolled for at least nine quarter

units or twelve semester units in an approved educational institution and have satisfactorily completed nine quarter units or twelve semester past units and
- Able to repay the loan based on a budget consultation and
- A resident of Santa Clara County and
- Over the age of 18 and have legal and physical custody of at least one child age 17 or younger and
- Unable to receive other forms of funding and
- Not in the process of bankruptcy.

Jobs Consortium, Alameda County

The Jobs Consortium is a training organization that helps homeless in Oakland to re-enter the workforce with job support, retention, and training services. While homeless clients are involved in their job search, they are provided free bus tickets and BART tickets (if a need is determined), and financial help with obtaining a driver's license. Clients are allowed 2 bus tickets and 2 transfers a day. After securing a job, they are given two weeks worth of bus tickets. The Jobs Consortium serves about 1,000 clients at a time. Clients may also receive free bus and BART tickets for transportation to training centers or colleges. There is a one year time limit on transportation aid for job searchers, however, if needed, they can re-enroll after one year. For those enrolled in school or a training program, a bus pass is given for as long as they are in school.

OUTREACH Program, Santa Clara County

This program provides consultation to low-income and CalWORKs clients and helps them develop a long term plan for their transportation to work and work related travel needs. They provide two types of transportation services: the Guaranteed Ride Home Program and the Give Kids a LIFT! program.

Guaranteed Ride Home Program: The Guaranteed Ride Home (GRHP) program is a temporary, transitional service that offers CalWORKs and other low-income clients up to 30 rides in emergency situations to work-related destinations such as childcare and school. This program is funded by the Federal Transit Administration, Job Access and Reverse Commute program and matching funds from the Santa Clara County Department of Social Services. The service is available 24 hours a day, 7 days a week and is utilized by nearly 2,500 CalWORKs clients. Since the program began in November of 1999, the GRP has provided participants with more than 60,000 trips. Ninety percent of clients enrolled are CalWORKs and the remaining 10 percent are other low-income families (up to 150 percent of the federal poverty line).

Give Kids a LIFT! Program: Beginning in October of 2001, Give Kids a LIFT! provides children of CalWORKs recipients and other low-income individuals free after-school transportation from school to day-care sites, after school programs, and neighborhood and community programs. Families enroll for a set number of days of regular weekly service. Two adults are on board each vehicle to help supervise children.

The service is available year round; during summer months vans will pick up after day camps or summer school and take to day care locations. The county has agreed to allow up to 10 percent of clients to be other low-income, defined as household income within 150 percent of the federal poverty line. They serve around 150 chlildren during the school year and approximately 50 children during summer months. The number of families enrolled represents a small proportion of total CalWORKs clients. However they are continuously recruiting families through case workers and through partner agencies. The program is funded for three years by MTC's LIFT program and by local matches from the county. They have just completed the first year of the program.

OUTREACH keeps statistics on both the children's LIFT program and the GRHP on a quarterly basis. Data collected include enrollment, number rides, miles transported, and trip purposes. OUTREACH partners directly with VTA and the County of Santa Clara Social Services Agency. In addition, the county has an extensive network of CBOs, homeless organizations, refugee organizations, and community colleges serving low-income populations, which they utilize in distributing information on transportation services throughout the county.

San Francisco Women's Foundation, Transportation Justice Initiative

The Transportation Justice Initiative is a program run by the San Francisco Women's Foundation. The objectives of the program are to increase access to transportation to employment, training, school, child care and health care services for low-income women and girls and to empower them to organize for transportation justice in their communities. The Transportation Justice Initiative seeks to have a strong influence on transportation planning and policy. Some projects under consideration include:

- Collaboration on projects and community meetings with transportation planners and officials in order to increase investments in making transportation more accessible to low-income women and girls.
- The creation or support of car loan or van services.
- Advocacy of expanded public transit services that serve low-income women and girls in their transportation needs.
- Leadership development of low-income women working for transportation justice.
- Development of transportation access agendas in community based organizations serving low-income communities.

The Transportation Justice Initiative awards one-year grants, up to $20,000 per year, for projects that promote these objectives to organizations located within the one of the nine Bay Area counties. The following table is a list of Transportation initiative grantees for the 2000-2001 fiscal year.

Transportation Justice Initiative 2000-2001 Grantees

AGENCY	CITY	GRANT	DESCRIPTION
FAMILY SERVICES AGENCY OF SAN MATEO COUNTY	Burlingame	$40,000 over two years	Administering low-interest loans for women to purchase or repair vehicles
LIFETIME	Oakland	$20,000	Leadership development and advocacy training in transportation justice for CalWORKs mothers
NAPA VALLEY WORKFORCE INVESTMENT BOARD	Napa	$20,000	Providing transportation solutions via loans for individual women seeking or training for employment
OUTREACH AND ESCORT	San Jose	$20,000	Expanding their Guaranteed Ride Home program to provide occasional safe transportation for low-income women in case of car trouble, unscheduled overtime, or family illness
PEOPLE UNITED FOR A BETTER OAKLAND (PUEBLO)	Oakland	$19,849	Developing a transportation justice campaign to influence the Metropolitan Transportation Commissionís Welfare to Work project for the San Francisco Bay Area
TRANSPORTA-TION CHOICES FORUM	Oakland	$40,000 over two years	Helping planners, elected officials, and advocates better understand transportation barriers and become involved in creating solutions to meet the transportation needs of their communities
URBAN HABITAT PROGRAM	San Francisco	$40,000 over two years	Advocating for transportation justice with a Welfare-to-Work planning program and work on a Regional Transportation Plan for the Bay Area
WORKING PARTNERSHIPS USA	San Jose	$20,000	Supporting efforts to empower women in low- income communities to advocate for their transportation needs

Charity Groups

Many charity groups provide bus tokens and passes to homeless and low-income individuals on a case-by-case basis for the duration of their receipt of general services from the charity. Some charity groups donate used cars or sell used cars at a reduced priced to low-income individuals. This section contains information on several charity organizations in the Bay Area but is not meant as comprehensive description of every transportation assistance program provided by charity organizations throughout the region.

Catholic Charities Family Resource Center, San Francisco

The Catholic Charities Family Resource Center provides several services for low-income, homeless and immigrant families.

The Child Care Voucher Program helps homeless parents, usually single mothers who have been victims of domestic violence, find permanent housing, schooling, training and employment. They provide these women transportation vouchers for transportation to school, employment, day care or job search for up to one year. Clients must be homeless or have been homeless within the last 6 months and must be ineligible for TANF. If clients have a job or are in school or a training program, they are given a Muni Fast Pass (monthly bus pass). For clients who do not receive passes, individual bus tickets are provided for occasional needs as doctor appointments and emergencies.

The Employment Program for Refugees helps new immigrants with English as a Second Language (ESL) training and provides job placement services. While clients are in the program, they receive Muni Fast Passes. Most clients are provided with the service for three months, however some may stay longer under special circumstances. When they obtain a job, they are no longer given transportation assistance unless their job is particularly low paying and they cannot afford a pass. In July 2002 they were serving approximately 17 refugees.

In addition, Catholic Charities has a Case Management Program for immigrant mothers (Rita de Cascia) and a transitional housing program for teens (the Guerra House) that provide transportation assistance.

Compass Community Services, San Francisco

Compass Community Services serves homeless and low-income families in San Francisco. They provide bus tokens for clients of homeless shelters and people using Section 8 housing vouchers. Each token is good for a roundtrip on Muni and may be used for work related trips, medical appointments, and training classes.

Connecting Point, San Francisco

Connecting Point is a centralized intake system for homeless families. They provide emergency food, clothing, transportation and crisis intervention counseling while families await placement in full-service shelters. The shelters are case-managed, full-service shelters that provide a wide range of services to help families stabilize, as well as refer them to resources and counseling, and transition to more permanent housing. They provide bus tokens to clients for the purpose of getting to and from the facility. They are given 2 tokens a day per adult.

Novato Human Needs Center, Marin County

The Novato Human Needs Center is a daytime homeless services center that provides showers, mail, telephone, emergency food and transportation vouchers to the homeless.

Ritter House, Marin County

The Ritter House is a homeless shelter in San Rafael that periodically receives donated cars that are in good running condition. They donate these cars to their clients on the

condition that they have a valid driver's license and proof of car insurance. There is a waiting list for this program that at times is closed due to its length.

The Ritter House offers bicycle repair, maintenance, and parts to homeless clients. Bicycles are often the main source of transportation for their clients. This service is offered free through Marin Re-Cylery, a non-profit agency in San Rafael.

St Vincent de Paul Society, Marin County

The Saint Vincent de Paul Society provides services to homeless and low-income individuals in San Rafael including transportation vouchers and occasional car donations. Bus tickets are distributed to homeless individuals on an as needed basis. Clients are allowed one visit a month to the center and receive a maximum of six of each type of transit ticket needed. However, the actual number of tickets distributed depends on funds available at the time. Cars are donated to some low-income individuals who request them. A volunteer visits the client's home to discuss their situation and the organization reviews each request and will donate cars to individuals who can show ability to maintain them and pay for insurance as well as verify employment or enrollment in a training or education program.

Travelers Aid Society, Alameda County

The Travelers Aid Society, located in Oakland, assists people who are stranded any where in the Bay Area in getting home by paying 25-percent of a one-way Greyhound ticket. Recipients are required to provide a telephone contact at their planned destination to verify a place to stay. The agency also offers local bus tickets for the purpose of transportation to the place of employment on an as-needed basis to low-income individuals.

Government Funding for Programs

This section reviews major federal and local government programs that fund transportation assistance programs.[31]

Jobs Access and Reverse Commute Program (JARC)

The JARC program is a federal grant program run by the Department of Transportation to fund assistance for job access and reverse commutes. Job access grants are provided for the development of transportation services for welfare recipients and low-income individuals to and from jobs. Reverse commute grants fund transportation services for residents of urban centers and rural and suburban areas to suburban employment opportunities. The program provides discretionary funds for these types of services between the fiscal years 1999 and 2003 from the Mass Transit Account ($400 million) and the General Fund ($100 million).

[31] See Loveless (1999) for a discussion of private funding for transportation assistance.

Within the Bay Area, there have been several grants in 2000-01. For example, JARC granted $2 million to AC Transit to expand night bus service in low-income areas in East/West Oakland and Fruitvale. Another $3 million grant was given to the Metropolitan Transportation Commission (MTC) to support the Low-Income Flexible Transportation (LIFT) program (described below). In addition, JARC grants fund several programs described in this chapter including the OUTREACH program in Santa Clara County and the Napa County Guaranteed Ride Home Program.

The Federal Transit Administration Office of Planning conducted a series of case studies of JARC grants (DOT, 2001). The case studies examine how various agencies have addressed transportation issues facing welfare recipients. The report gives descriptive information on programs but does not critique or evaluate them.[32]

Other Federal Programs

The federal government provides funds to states to use for support services, including transportation for welfare to work programs. States are allowed to spend 16.5 billion annually for these support services (Garnett, 2001).

JOBLINKS is a $3.5 million project administered by the Community Transportation Association of America. It funds transportation programs for welfare recipients.

TEA-21 provides $750 million in funding over five years (1997-2003) for job access and reverse commute programs for welfare recipients (Chapple, 2001). Of this, $10 million is earmarked for reverse-commute programs (Loveless, 1999).

The Department of Labor provides welfare to work grants for job retention and support services that are available to fund transportation programs (Ong and Blumenberg, 1999).

The U.S. Department of Housing and Urban Development (HUD) funds Bridges to Work -- an employment demonstration program designed to assist low-income households in cities by bridging the spatial separation between them and job opportunities. Public/Private Ventures (P/PV), a tax-exempt research and operational nonprofit organization, is funded to carry out and evaluate the demonstration in five cities: Baltimore, Chicago, Denver, Milwaukee, and St. Louis.

The Department of Health and Human Services and the Department of Transportation offer the Medicaid Transit Pass program under which local or state Medicaid offices (or agencies appointed or subcontracted by them) contract with the local transit authorities to purchase monthly transit passes. These transit passes are then distributed to Medicaid clients who are able to use public transportation for medical travel needs. See http://www.fta.dot.gov/CCAM/www/publications/medicaid.html.[33]

[32] See also Garnett (2001) for a discussion of JARC.
[33] The MTC contact person for the Medicaid Transit Pass program is Tim Thomas.

Low Income Flexible Transportation Grant Program (LIFT)

The Metropolitan Transportation Commission's LIFT program allocates funding of up to $6 million to new and expanded transportation services that facilitate low-income individuals in getting to and from work and work-related activities in the Bay Area over a three-year period. Sources of this funding include $3 million from federal JARC grants and $3 million in State Transit Assistance funds. To date, twelve applications for projects have been received and approved at a total program cost of $4,999,330. Dollar-for-dollar match is required by the applicant in order to help encourage partnerships between transportation providers and social services agencies. MTC targets these funds towards programs that will cost effectively and significantly improve the ability of low-income workers to obtain and retain employment and which will be financially self–sustaining as of the fiscal year 2004-05. A list and brief description of these approved projects is provided in Appendix D of this report.

Resources for Transportation Assistance Programs in Other Regions

Surveying programs outside of the Bay Area was beyond the scope and time limitations for this review.

For a discussion of welfare to work transportation programs throughout the nation, see *Access to Jobs: A Guide to Innovative Practices in Welfare-to-Work Transportation* (Community Transportation Association, 1999, www.ctaa.org/ntrc/atj/pubs/innovative/).

Readers interested in programs outside of the region should consider programs offered by the Tri-County Metropolitan Transportation District of Oregon (TriMet). TriMet operates in the Portland area and offers a jobs access program for low-income families (including those on TANF) as well as a discounted pass program for K-12 students, a college transit program, and an extensive employer transportation program. See http://www.tri-met.org.

Appendix A. University Transportation Centers

This appendix provides a list of University Transportation Centers (UTCs). Information on ongoing research projects related to transportation affordability for low-income populations was developed, in part, by searching UTC websites and contacting the director of every center. California UTCs are listed in boldface and contact information is provided.

Name / Location	**Center Director and Center Theme**
REGION I: MIT,Cambridge, MA	Director: Dr. Joseph CoughlinTheme: Strategic Management of Transportation Systems
REGION II: CUNY, New York, NY	Director: Dr. Robert Paaswell Theme: Planning and Management of Regional Transportation Systems
REGION III: Penn State, State College, PA	Director: Dr. James Miller Theme: Advanced Technologies in Transportation Operations and Management
REGION IV: U of Tennessee, Knoxville, TN	Director: Dr. Stephen Richards Theme: Transportation Safety
REGION V: U of Wisconsin, Madison, WI	Director: Mr. Ernest F. Wittwer Theme: Optimization of Transportation Investment and Operations
REGION VI: Texas A&M, College Station, TX	Director: Mr. Dock Burke Theme: Transportation Solutions to Enhance Prosperity and the Quality of Life
REGION VII: Iowa State University, Ames, IA	Director: Mr. David Plazak Theme: Sustainable Transportation Asset Management
REGION VIII: North Dakota State, Fargo, ND	Director: Dr. Denver Tolliver Theme: Rural and Intermodal Transportation
REGION IX: UC Berkeley, Berkeley, CA Consortia Members: UC Davis, UC Irvine, UCLA	Director: Prof. Elizabeth Deakin; edeakin@ix.netcom.com; ph: (510) 643-7378 Theme: Transportation Systems Analysis and Policy
REGION X: U. of Washington, Seattle, WA	Director: Dr. Nancy Nihan Theme: Transportation Operations and Planning
Alabama, U. of Tuscaloosa, AL	Director: Dr. Daniel S. Turner Theme: Management and Safety of Transportation Systems
Arkansas, U.of Fayetteville, AR	Director: Dr. Melissa Tooley Theme: Rural Transportation
Assumption College Worcester, MA	Director: Dr. Charles Estus Theme: Transportation and Environmental Education for the 21st Century

Central Florida, U. Orlando, FL	Director: Dr. Essam Radwan Theme: Advanced Transportation Systems Simulation
Denver, U. *w/ MS State* Denver, CO	Director: Dr. Paul Dempsey Theme: Intermodal Transportation: Assessment, Planning & Design
George Mason U., Fairfax, VA	Director: Dr. Roger Stough Theme: Deployment of Intelligent Transportation Systems
Idaho, U.of Moscow, ID	Director: Dr. Michael Kyte Theme: Advanced Transportation Technology
Marshall U., Huntington, WV	Director: Mr. Robert H. Plymale Theme: Transportation and Economic Development in Mountain Regions
Minnesota, U. of Minneapolis, MN	Director: Dr. Max Donath Theme: Human-Centered Transportation Technology
Missouri-Rolla, U. Rolla, MO	Director: Dr. Antonio Nanni Theme: Advanced Materials and Non-Destructive Testing Technologies
Montana State U. Bozeman, MT	Director: Dr. Stephen Albert Theme: Rural Travel and Transportation
Morgan State U. Baltimore, MD	Director: Dr. Andrew Farkas; Theme: Transportation: A Key to Human and Economic Development
NC State U. Raleigh, NC	Director: Dr. John Fisher Theme: Transportation & the Environment
NCA&T Greensboro, NC	Director: Dr. Michael E. Simmons Theme: Urban Transit Performance in Small and Rural Areas
NJIT Newark, NJ	Director: Dr. Lazar Spasovic Theme: Productivity Increases through Transportation Improvements
Northwestern U. Evanston, IL	Director: Mr. David Schulz Theme: Infrastructure Technology
Purdue W. Lafayette, IN	Director: Dr. Robert J. Bernhard Theme: Safe, Quiet and Durable Highways
Rhode Island Kingston, RI	Director: Dr. Richard Horn Theme: Surface Intermodal Transportation Systems/Infrastructure in a Marine Environment
Rutgers U.Piscataway, NJ	Director: Prof. Ali Maher Theme: Advanced Transportation Infrastructure: High Volume Systems
San Jose State U., San Jose, CA	Director: Mr. Rod Diridon diridon@iistps.cob.sjsu.edu; ph: (408) 924-7560 Theme: Policy Guidance of Transportation Management

	Systems
So. Carolina State, Orangeburg, SC	Director: Mr. Clarence Hill Theme: Professional Capacity Building in Transportation
South Florida, U.of Tampa, FL	Director: Dr. Joel Volinski Theme: Transit and Alternative Forms of Urban Transportation
University of Southern California (w/Cal State Long Beach), Los Angeles, CA	Director: Dr. Genevieve Giuliano giuliano@usc.edu; ph: (213) 740-3956 Theme: Metropolitan Transportation

Appendix B. Contact List for Transportation Assistance Programs

The following table provides contact information for government agencies and other organizations that were contacted for information on transportation assistance programs for low-income families in the San Francisco Bay Area.

Programs Contact List and Notes					
AGENCY	**CONTACT**	**TITLE**	**PHONE**	**Interviewed?**	**NOTES**
Social Services Agencies					
Alameda	Karen Obidah	Transportation Coordinator	510-259-3897	yes	
Contra Costa	Paul Branson	Transportation Coordinator	925-313-1702	yes	
Marin	Katherine Ferar	Transportation Coordinator	415-892-1815	yes	
Napa	Debbie Schwarzbach	Transportation Coordinator	707-259-8327	yes	
Solano	Ava Williams	Transportation Coordinator	707-553-5696	yes	
San Francisco	John Murray	Transportation Coordinator	515-557-6425	yes	
Santa Clara	Alfredo Nevius	Management Analyst	408-278-6582	yes	
	Patricia Phillips	Case Worker		yes	
Sonoma	Gregg Barley	Transportation Coordinator	707-565-8509	yes	
San Mateo	Cheryl Deocampo	Transportation Coordinator	650-802-6542	yes	
Transit Agencies					
AC Transit	Katherine Cook	Transit Pass Coordinator	510-891-4754	yes	
	Tina Konvalinka	Manager of Long Range Planning	510-891-4754	yes	
Central Contra Costa Transit Authority (County Connection)	Maria Borrego			yes	
Golden Gate Transit (Marin)	Sue Chiaroni		415-257-4467	yes	no programs
Napa Valley Transit Planning Agency	Peter Ingle			yes	
S.F. Muni	Christine Ruiz		415-923-6048	emailed questions	
Vallejo Transit	Victoria Lavow-Hutchinson	Personnel Payroll Clerk	707-648-4666	yes	
Santa Clara VTA	Hien Njuyen	Public Communications Specialist	408-321-7519	yes	
ECO PASS Program	Kevin Kurimoto	ECO PASS Coordinator	408-952-4198	yes	
Housing Developers Offering:					
Mid Pennisula Housing Coalition	Kevin Brown	Project Manager	408-650-482-5528	yes	
Community Housing Developers	Reagan Flagler	Community services manager	408-279-7677	yes	
First Community Housing	Betsy Powel	Project Manager	408-291-8658	no	
SAMTRANS	Penny Bertrand		650-508-6244	yes	
Fairfield-Suisun Transit	Patrick Omera		707-863-8980	no	
WHEELS (LAVTA)	Merrie DuFrene		510-455-7555	no	
BART	Mike Maeda		510-464-7137	yes	
	Ellen Smith	Strategic Planning	510-287-4758	no	

AGENCY	CONTACT	TITLE	PHONE	Interviewed?	NOTES
Other government Agencies					
Pennisula Traffic Congestion Relief Alliance	David Nelson	Public Relations and Advertising	650-994-7924	yes	
One Stop Centers	Mario Davis	Database Specialist	510-7684473	yes	
East Bay Works Career Center	Bertha Ruiz	Manager	925-634-2195	yes	No programs
	Patricia Wright	Career Counselor	510-768-4434	no	
CALTRANS	Horacio Paras	Deals with JARC $ for pops <200k	916-654-9979	yes	
FTA Region 9	Paul Page	JARC Funds	(415) 744-2734	yes	going to send information on wh
Workforce Investment Boards					
Napa Valley Workforce Investment Board	Marti Finnegan		707-259-8362	yes	
Alameda County WIB	Dorthy Chen		(510) - 259-3844	yes	
Contra Costa County Workforce Investment Board	Ronald A. Wetter		(925) - 646-5382	yes	no programs
San Mateo County Workforce Investment Board	Kirsten Cornuelle		(650) - 802-6579	no	
Non-Profits					
Family Loan Program of San Mateo County	Carlos Valenzuela	Family Loan Program Director		yes	
OUTREACH			408-436-2865	yes	
Give Kids a LIFT! Program	Anne Winthorpe		1-408-436-2865		
Guaranteed Ride Home Program	got info from internet				
Bay Area RIDES	Chris Weeks	Planning Analyst	510-893-7665	yes	no program info but would like to
Jobs Consortium	Vickin Holden	Receptionist	(510) 549-8820	yes	
	Claude Everett				
Bay Area Land use Coalition/Transportation Choic	Jeff Hobson	Policy Director	510-740-3150	yes	
Bay Area Council	Michael Cunningham	VP of Transporation	(415) 981-6600	yes	sent info on other orgs.
Homeless Education Program, West Contra Costa	Jeri Cohen	Homeless Education Coordinator	510-233-9516	yes	
	Cheryl Esquievl	Administrative Assistant			
Jewish and Family Services, Sonoma County	Terri Marshall	Loan Coordinator	707-5718131	yes	
Novato Human Needs Program (Children's transp	Dena Ez	community services program manager		no	
Pueblo	Cameron Yee		(510) 452-2010 tel.		
Silicon Valley Manufacturing Group	Laura Chachinsky	Transportation Planning Director	(408) 501-7864	yes	Referred me to ECOPASS progr
S.F. Women's Foundation, Transportation Justice	Stephanie Yang	415-837-1113 x316		yes	
Surface Transportation Policy Project	James Corless	California Director	(415) 956-7795	no	
	Kristi Kimball	N.Cal Campaign Manager	(415) 956-7835	no	
Urban Habitat Program			(510) 839-9510	yes	no programs
Working Partnerships USA			408-269-7872	no	
Charity Organizations					
Catholic Charities				yes	
240 Golden Gate Ave., 3rd Floor					
Compass Community Services	LaTonya Knight			website	
Marin				yes	
San Mateo	Maritza Tecurri	Community and Conference Liason		yes	
The Ritter House		Got info from website	(415) 457-8182	no	
St. Vincent de Paul Society			(415) 526-6172	yes	
Travelers Aid Society	520 16th Street, Oakland		510-444-6834	yes	

Appendix C. The SEATAPP Program

This appendix provides additional information on the SEATAPP program in Alameda County. The following text was written by Spergon Hunt at the Eden Youth and Family Center.

Eden Youth & Family Center is a cooperative system of service delivery; it is an unique program that pools the resources of other youth and family focused agencies co-located at the Center with its own direct services to address the health and stability of family units. EYFC provides the property management leadership role in this cooperative effort. The center has over twenty-five years of experience.

In addition, the organization provides direct services to the community with low-cost child care for children from birth through pre-kindergarten; an emergency respite childcare program for families under stress; a tattoo removal project for youth who have visible gang or drug related tattoos; emergency transportation assistance; a Computer Clubhouse that exposes under-served children to technology, a medical clinic, a dental clinic and an alternative high school. Over two hundred children and/or their families visit the Center daily.

In the spring of 2000, the Eden Youth & Family Center signed a contract with Alameda County to provide emergency transportation assistance to CalWorks participants living in Southern/Eastern Alameda County. This contract was formed to facilitate the response associated with the approval and distribution of transportation resources. Many Hayward residents face significant transportation barriers which threaten to jeopardize their access to vital employment opportunities and other services. The program has formalized the development of emergency assistance involving: gas cards, taxi vouchers, bus passes, BART tickets and vehicle repair.

Initially, a pilot project, SEATAPP has exceeded expectations. During the fiscal year ending June 30,2002, the program eclipsed its contractual goal by 33%. Because of this performance, the contract was renewed for fiscal year 2003; although, due to State and County budgetary constraints, the contracted amount was reduced.

Both objective and anecdotal evidence suggest that transportation is a significant barrier to employment. Presently, there are 16,000 Calworks participants in the County of Alameda; of which 1,767 live in the city of Hayward. This population segment faces many language and cultural issues that preclude their full and complete participation in society.

SEATAPP is formalizing the development of alternative transportation service options. These options are for Calworks participants when existing services are unavailable or insufficient to meet their needs. SEATAPP transportation services that have been developed include the following:

Public Transportation Assistance-include the issuance of BART tickets and bus passes.

Trip Planning & Transportation Mapping Assistance-SEATAPP staff will provide trip planning services to ensure that the most cost effective and the most time efficient form of transportation option is used.

Taxi & Para-Transit Services-a contract has been established with with a cab company to provide individual trips and where feasible, trips for groups when other modes of transportation are unavailable.

Auto Repair-certified and licensed automobile mechanics have been contracted with via MOU's. They perform diagnostic testing prior to any repairs and then advise the SEATAPP staff of the most pressing repairs needed. The decision to repair or not is made on a case by case basis.

Pending Development:

Auto Loan Program-candidates for this adjunct to existing services were those not approved for car repair because their cars were either too costly or too old to repair.

The above mentioned services are aimed at those Calworks residents living in Southern /Eastern Alameda County; specifically: Fremont, Hayward, Newark and Union City who are seeking and/or participating in employment or employment related services.

In order to reach Calworks participants, SEATAPP will employ the following multi-faceted outreach strategies:

- Social Service Agencies/CBO's- During the past fiscal year, we have aggressively partnered with twenty five agencies that serve Calworks participants. This has provided an effective network of contacts that will continue to need transportation assistance.

- South Hayward Neighborhood Collaborative-The collaborative has been instrumental in marketing the program to the immediate community. At selected intervals, flyers about the program are included with meals served.

- Public Service Announcements-Through radio and the print media, we have focused on the Hispanic population which represents the vast majority of Hayward citizens.

- Community Flyers-Flyers and brochures have been circulated throughout the community in English, Spanish, Tagalong, Farsi, and Vietnamese.

- Committees & Focus Groups-SEATAPP staff attends several meetings each month with transportation coordinators representing BART, AC Transit, MTC, the City of Hayward and the Counties of: Alameda, Contra Costa, San Mateo, San Francisco, and Solano.

- Faith Community-through flyers, brochures and pastoral contacts, SEATAPP has established relationships with several churches in the community.

SEATAPP will employ all of the above in an effort to maximize outreach to Calworks participants.

After reviewing the unmet needs and requests of those living in South Hayward, we would like to institute a car loan program. There exists precedent for this type of innovative program in other counties of California.

The concept is to offer low-interest loans for those who would not otherwise qualify for financial assistance.

The idea is to help keep them working, looking for work or going to school. It is modeled after an idea developed by the McKnight Foundation in Minnesota in 1984. It has the dual benefit of combining banking with social services in an effort to help those unserviceable through other means. The notion is similar to a credit union; relatively small loans at moderate interest rates made to those experiencing hardship; and as the money is paid back, it is recycled to make additional loans. This inherent sustainability ensures the viability of the project.

SEATAPP description written by Spergon Hunt, Eden Youth & Family Center, July 2002.

Appendix D. The LIFT Program

This appendix provides information on the projects recommended for funding under the Metropolitan Transportation Commission LIFT program. All recommended LIFT funding described in this table is matched by an equal amount of local funding. The following table was taken directly from the MTC website at http://www.mtc.ca.gov/projects/welfare_to_work/lift.htm.

LOW INCOME FLEXIBLE TRANSPORTATION (LIFT) PROGRAM OF PROJECTS				
Project Title	**Brief Description**	**LIFT Funding**	**Sponsor**	**Comments**
1. City of Alameda Route 50 service improvements	Extends hours of operation from 9:30 p.m. until midnight serving Alameda Point area (which is being developed to house homeless and low income persons) connecting to other AC routes and BART.	$60,000 (2 years' funding)	AC Transit	Provides late evening transit access to an isolated community. Project slated for Measure B funding in FY 2002.
2. Hayward Industrial Area Shuttle	Initiates a new bus route serving residential neighborhoods with high concentrations of CalWORKs clients as well as an industrial area of Hayward providing access to employment.	$750,000 (2 years' funding)	AC Transit	Sponsor is requested to increase service frequencies on this route. Project slated for Measure B funding in FY 2002.
3. West San Leandro BART shuttle	Initiates a new shuttle service from the San Leandro BART station to an industrial area west of Hwy 880 providing access to employment.	$375,000 (2 years' funding)	City of San Leandro	Slight reduction in amount requested.
4. Contra Costa/Marin Route 40 (Golden Gate Transit)	Extends service hours and increases service frequencies on Route 40 from Richmond to job opportunities in San Rafael providing connections to BART.	$536,000 (3 year's funding)	Contra Costa Employment and Human Services Department	Project sponsor requested to clarify route.
5. Contra Costa Route 114 — Monument Corridor	Extends service hours and adds Sunday service to an existing route serving an area with a high concentration of CalWORKs participants.	$330,330 (3 year's funding)	Contra Costa County Transit Authority (County Connection)	

6. Napa County Transit service	Extends service hours on the entire VINE system providing greater access to employment by covering later work shifts.	$228,000 (2 years' funding)	Napa County Transportation Planning Agency	NCTPA is currently conducting a transit service plan.
7. Treasure Island Service	Adds service frequencies and owl service to an existing route providing the only transit access from Treasure Island to San Francisco.	$750,000 (3 year's funding)	San Francisco Municipal Railway.	
8. San Mateo Human Services	Provides mid-day shuttle service from Caltrain and SamTrans stops to the HSA's One Stop center for job training and worker services, and emergency taxi vouchers for a guaranteed ride home.	$200,000, plus $120,000 for an additional project upon completion of their countywide plan.	San Mateo Human Services Agency.	Sponsor had requested funding for a fare subsidy program but failed to demonstrate that there were no other funds available for that purpose.
9. Santa Clara - Children's Shuttle Service	Initiates a shuttle program providing school age children with transportation to and from school/after school care.	$750,000 (3 years' funding)	OUTREACH (non-profit agency providing paratransit in Santa Clara County)	
10. SolanoWORKs Countywide Emergency Transportation Service (SCETS)	Initiates a Guaranteed Ride Home program for CalWORKs participants.	$75,000 (3 years' funding)	Solano County Health and Social Services Agency	Recommend the sponsor designate a transit agency as the fiscal agent.
11. Santa Rosa CityBus— Route 15	Provides continued funding for a new route serving neighborhoods with high concentrations of CalWORKs population as well as retail area.	$500,000 (2 years' funding)	City of Santa Rosa.	City received an FTA Job Access grant in FY 99 but was unsuccessful in FY 00.
12. Sonoma County — children's shuttle	Initiates a shuttle program for school age children, an off-peak employment shuttle and a shuttle for foster teens.	$325,000 (3 years' funding)	Sonoma County Human Services Department.	Project needs additional planning work.
TOTAL		**$4,999,330**		

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